

The Resonator

Official Newsletter of The Fair Lawn (NJ) Amateur Radio Club

Volume 7, Number 3

www.FairLawnARC.org

March 2022

Member Profile

NAME: Luisa Adely CALL: KD2WYX

Hello everyone, my name is Luisa Adely. I am very new to HAM Radio. I just passed my license on September 11, 2021.

I am a full time Daycare teacher. I have been working at the Wyckoff YMCA for soon to be 21 years. I also worked at St. Joseph's Daycare in Paterson for nine and a half years before working at the Wyckoff Y.

As you can see, I have been a teacher for a long time. I have worked with all age groups; the children in our center are between the ages of 6 weeks to 6 years old. For the past 19 years I have worked with Woddlers, eighteen months to two and a half years old. I love what I do.

Continued on next page.

INSIDE THIS ISSUE

- 1 President's Message
- 1 Member Profile
- 34 ARES / RACES Report
- 9 VE License Testing
- 15 The Way We Were Fred Belghaus W2AAB
- 36 Around the Shack Hal Kennedy N4GG
- 58 Business Meeting Notes
 - **SIG Report Contest Corner**
- 40 SIG Report Digital Voice Modes
- 52 SIG Report DX
- 34 SIG Report Emergency Communications
- 53 SIG Report Portable Ops
- 40 SIG Report Radio Monitoring
- 42 SIG Report Raspberry Pi and Arduino
- 47 SIG Report Satellites

From The President

Dear FLARC Family,

It was great to see many faces at out March Business meeting. The room was full and we had decent participation via Zoom.

Please pardon the small technical glitch with the transmission of the meeting. Since we were taken to the bottom floor of the Recreation Center (last minute) the Wi-Fi there is a bit weak and was creating those cut-offs once in a while.

But I am sure everyone got most of what was presented last night. Hopefully soon we can resume full in person meetings having even a bigger crowd present at the Center, where we can expand on more activities for all to enjoy.

We continue to grow, and we welcome our new members from all over, near and far. Last night we welcomed at the clubhouse one of our newest members, Avanti K. Borucki, KC3DZG of East Orange, NJ. He served in the Air Force and had heard from our Club and wanted to be part of FLARC. Avanti, welcome to FLARC and THANK YOU for your service to our country.

Well, Spring is almost here, and with that our events quickly approach us. Our Hamfest, Earth Day, World Radio Day, Street Fairs, Field Day and more will be on our calendar.

I am truly optimistic that we will be as close as possible to saying that we'll have a "normal" spring and summer to enjoy our events.

But, in order to have great events, we must count on great people, and that's why I am looking at YOU. In order to be successful, you must engage and be part of it.

That's why I come to you now and let you know

Continued on next page.

Member Profile, continued

I originally wanted to be an attorney, went to school and graduated with my Political Science degree, started working with Attorneys and decided that being an attorney was not for me, so I went back to school and received my bachelor's degree in Political Science with an Early Childhood degree. I am so glad that I changed majors. Teaching is more me.

I am married with two boys: Kyle 19 and Travis 15. Kyle is in Bergen Community College and Travis is a freshman in Fair Lawn High School. My husband, Kevin, is a nursing manager for an eye surgery center in New Rochelle, NY. My husband and I moved our family to Fair Lawn about 5 years ago. We lived in South Hackensack when our boys were younger and decided to move to Fair Lawn when our older son had to go to High School.

Our boys were in St. Elizabeth School from Pre-K to eighth grade. My husband is from Fair Lawn, I am from West Milford, and we decided that Fair Lawn would be a great place to raise our boys and since Fair Lawn has an excellent school system it would be perfect for us. It also helped that my in-laws and brother in-law are still living in Fair Lawn. We found the perfect house and have been happy ever since.

Once we moved to Fair Lawn, I decided to become more involved in the town. I am an EMT/ Paramedic Assistant. I volunteered for West Milford First Aid Squad and worked for Eagle Ambulance in Wayne. I no longer volunteer for the Ambulance, but I am a CPR/First Aid Instructor. I wanted to help "medically" if I could.

Becoming a CERT member was next on my to do list. I now volunteer for the Fair Lawn CERT and love every minute of it. I also volunteer for the Fair Lawn Women's Auxiliary. I am also on a women's bowling team at Bowlero in Fair Lawn. I am not very good, but it is a lot of fun, and it helps me meet people. As you can see, I love to help and learn new things.

Continued on next page.

From The President, continued

that WE NEED YOU to be part of the fantastic group that makes FLARC a special club. With close to 200 members, nothing can stop us.

That's why I want to see YOU involved in our 2022 FLARC events. Drop me a line at np4h@aol.com and let me know I can count on you. Or call me, 917-443-2664. I would love to hear from you and know how you can plant a seed to continue to take FLARC to the next level. We know we can count on YOU.

This month we had to do a minor change and have our business meeting on the second Friday of March, so I hope to see you at the clubhouse or via Zoom, but please make sure to join us. Remember, this is YOUR club.

Take care, be safe and stay healthy...

I'll "see ya" on the radio!

73,

Nomar, NP4H FLARC President





Member Profile, continued

My Father- and Mother-in-law (Peter Adely Sr. W2HP and Kathy Adely W2YSF) are both HAM Operators and have mentioned throughout the years that they would love for my husband, my brother-in-law and me to become HAM Operators.

I never thought much about it until I was in a CERT meeting, and it was brought up that it would be very useful for more people to become HAM Operators in our group. I figured that now is a good time to study and take my test.

with spoke my neighbor and friend. Daniel Radcliffe (now KD2WYW) about wanting to become a HAM Operator. He thought it would be something he would like to do as well. We studied and we both passed our exam on the same day. I was so excited, as were my father and Mother-inlaw. My Father-in-law gave me all my equipment and is my "Elmer." I love it. My friend and CERT comember, David Gotlib KD2MOB, has been helping me as well and got me involved in the Fair Lawn Radio Club.

I am learning the radio and how to use it slowly. I am not a technical person, so this is a slow process for me. Everyone at the club, my Father-in-law and David Gotlib have been helping me so much. I have been participating in the "Near and Far" meetings. I went to a satellite exercise at Memorial Pool and hope to attend other meetings and outings as they become available. I am still nervous talking on the radio, but the more I do it the more comfortable I am getting.

As far as becoming more involved in the radio club, I am going to take it slow. Attend meetings and outings and just learning as much as I can for now is my goal.

Thank you so much for featuring me in this month's newsletter. I am honored by the recommendation. I hope to become more involved as I become more comfortable with my knowledge of the radio and all the equipment.

Other than that, 73 everyone and if you would like to know more, please give me a call on the radio, KD2WYX.



Luisa Adely KD2WYX



Luisa Adely KD2WYX and Peter Adely Sr. W2HP

The Fair Lawn Amateur Radio Club

Why Is FLARC New Jersey's Most Exciting Radio Club?

Events

- Field Day
- Winter Field Day
- World Amateur Radio Day
- Portable Days
- Earth Day
- Special events
- Memorial Day parade
- Independence Day fireworks
- Fair Lawn Street Fair(s)
- Ham fests/Auctions
- Foxhunts
- Contests
- Field trips
 - Annual holiday party
- ...and more!







There Is Something Every Night At FLARC!

- Monday: Near and Far Net
- Tuesday: DMR Net
- Tuesday: "Pop Up" Open House/Open Zoom
- Wednesday: ARES/RACES Net
- Wednesday: Health and Welfare Net
 - Thursday: Tech Net (with BARA)
- Friday: Kawfee Tawk Speaker Series (monthly)
 - Weekends: POTA and other station activations

There is Something for Everyone at FLARC!



- Portable Ops: POTA, SOTA, etc.
- DX: Chase the rare ones
- Digital Voice: DMR and other digital modes
- FT8: And other WSJTX modes
- Satellite: Also, for weather GPS interests
- Monitoring: SWL and other general listening
- And others to come!!





Plus:

- Monthly VE Testing
- An active repeater W2NPT (linked with NJ2BS)
- New equipment in the shack
- New antennas on the roof
- A five-position operating clubhouse
- Over 72 consecutive months of speaker programs to learn and grow.

That's why FLARC is the best club around!!

Join us in our in-person and in our Zoom Room for more activities, speakers, and projects to come!

FLARC is following Covid-19 government guidance closely and all events and activities will adhere accordingly to the latest advice.

The Club Fair Lawn ARC is the fastest growing ham club around, with five operating positions in a permanent clubhouse. Visitors and guests are always welcome. The club is open every Friday night, except when there is a Kawfee Tawk scheduled, from NLT 6:30 PM. Business meetings are the first Friday of the month at 7:30PM.

2022 Officers, Committ	ees and Assignments	
President	Nomar Vizcarrando	NP4H
Vice President	David Corsello	KD2JIP
Treasurer	Bruce Kalogera	NJ2BK
Secretary	David Gotlib	КD2МОВ
Trustee	Ed Efchak	WX2R
Trustee	Fred Wawra	W2ABE
Trustee	Brian Cirulnick	KD2KLN
	Noel Pagan	W2MSA
Field Day	Steve Rosman	KA2YRA
	Steve Wraga	WA2BYX
Member Services Health & Welfare	Judith Shaw	KC2LTM
	Ed Efchak	WX2R
Marketing	Nomar Vizcarrando	NP4H
iviai ketiiiy	Jim Cooper	W2JC
	Dave Corsello	KD2JIP
Program	Ed Efchak	WX2R
Video/YouTube	Thom Guida	W2NZ
Social Media	Thom Guida	W2NZ
Joeiui Iviculu	Dave Marotti	NK2Q
Photographer	Giovanni Lucero	K2GIO
	Gene Ottenheimer	WO2W
Community Relations	Dave Gotlib	KD2MOB
	Ed Efchak	WX2R
	Gene Ottenheimer	WO2W
Hamfest and Auction	Bill Leger	WA2WL
	Bruce Kalogera	NJ2BK
	Bill Kelly	NB1LL
Education	Earle "Skip" Barker	KD2BRV
	Paul Brennan	N6FB
Net Scheduler	Brian Cirulnick	KD2KLN
Contests	Lowell Vant Slot	W2DLT
FLARC Historian	Fred Belghaus	W2AAB
Webmaster	Jim Cooper	W2JC
	Jim Cooper	W2JC
Technical	Paul Cornett	W2IP
	Brad Kerber	KM2C
	Fred Wawra	W2ABE
RACES/ARES Director	Dave Gotlib	KD2MOB
RACES/ARES Liaison	Steve Wraga	WA2BYX
Newsletter Editor	Ed Efchak	WX2R
Newsletter Publisher Quartermaster	Jim Cooper Brian Cirulnick	W2JC
		KD2KLN
W2NPT Trustee	Paul Cornett	W2IP
NK2H Trustee	Ed Efchak	WX2R

FLARC To Hold VE Testing On March 12th

On March 12, 2022 Fair Lawn Amateur Radio Club will continue amateur radio test sessions.

The location is at:

The Fair Lawn Recreation Center 10-10 20th Street Fair Lawn, NJ

NOTE THAT THIS IS AN INDOOR LOCATION!

Covid-19 related incidents will cancel testing.

Prior to Testing:

Send an email to <u>wo2w@arrl.net</u> requesting to book your spot. <u>Pre-registration</u> is REQUIRED.

Please Bring With You:

- You MUST bring and WEAR personal PPE items including a face mask
- 2 pens and 2 pencils. None will be provided to you due to possible virus transmission
- Your FRN number, and (if licensed) a copy of your ham license or a valid CSCE (Certificate of Successful Completion Exam)
- A completed Form 605 (which will be sent to you ahead of your test session, along with your assigned test time.)
- Additionally, the \$15.00 exam fee. This is payable in cash (exact amount is a must)
- 3 copies of the CSCE form which will be sent to you ahead of your test session

Additional scheduled testing dates are: February 12, 2022 and March 12, 2022.

FLARC is following government Covid-19 guidance closely and all events will adhere accordingly to the latest advice.



2022 FLARC Kawfee Tawk Programs

Date	Presenter	Program
January 21, 2022 (Friday)	Bob Antoniuk N2SU	The History of Call Signs
February 18, 2022 (Friday)	Matt Heere N3NWV	POTA – Get Involved!!
February 26, 2022 (Saturday)	Barry Feierman K3EUI	NANO VNA Part 2
March 18, 2022	Charlie Cebula AC2ZU	How the Telegraph Helped the North Win the Civil War
March 30, 2022	Ed Efchak WX2R	The 2022 FLARC Member Survey
April 15, 2022	Sudiptha Ghose VU2UT	The Union of Asian DX'ers
May	Jose Vincens NP4G	Operating DXpeditions
June	To Be Announced	"FLARC Members Short Subjects" (NEW!!
July		
August		
September		
October		Radio Astronomy in Ham Radio
November (Date TBD)	Bob Zanotti HB9ASQ	The Swiss Short-wave Merry-Go-Round
December 15, 2022	TBD	About The ARRL: An Update



Hidetsugu Yagi's 130th Birthday Google Doodle

Follow FLARC ON THE WEB

Facebook: http://facebook.FairLawnARC.org

Twitter: @FairLawnARC

Blog: http://blog.FairLawnARC.org

Youtube: http://youtube.FairLawnARC.org

Website: http://FairLawnARC.org

SIG Group Participation as of February 28, 2022

Here is an update on the roster of Special Interest Groups...all groups have increased in size during the last month:

Contesting	14
Digital Voice	35
Monitoring	24
DX	19
FT8	20
Satellite	18
EmComm	12
Portable Ops	42
·	

FLARC General 169

Sign up for a group... or ...

why not start one?

if you would like to start a new
Special Interest Group.

The Clubhouse Is Open Three Fridays In March!!

Date	Clubhouse Status
March 4	OPEN
March 11	OPEN
March 18	CLOSED FOR KAWFEE TAWK
March 25	OPEN



And Stand-by for Other Open Days or Evenings!

The club will follow all borough COVID-19 requirements for this event.



Yuri's Night Is April 12th!

Fair Lawn Amateur Radio Club to Participate In Yuri's Night – The World Space Party on April 12th.

Yuri's Night is a celebration of the power of space to bring the world together and link the many interests of radio amateurs and space together. It commemorates the flight of the first human in space, Yuri Gagarin, on April 12, 1961. The idea came to us via Clint Bradford K6LCS of AMSAT.

The program will be on Tuesday, April 12, 2022 beginning at 7:30 PM via Zoom. It will be held in the same ZoomRoom as our regular PopUp Tuesdays, which begin at 7:00 PM ET.

Access using: https://zoom.us

Meeting ID: 814 8966 2864 Passcode: POP-FLARC

or connect by phone:

+1 646 558 8656 US (New York)

Meeting ID: 814 8966 2864 Passcode: 433379802

Our scheduled presenters are as follows:

- Lee Smith KD2DRS —A FLARC member, Lee has built a career in both amateur radio and space. He will discuss how he works with MLI blankets that protect the space vehicles and satellites.
- Bob Holstrom KD2BKD—Also a FLARC member, Bob will discuss "Amateur Radio on International Space Station" and what we as Ham radio operators can do to participate.
- Norm Sutaria KB2JRP-- Background on the work of the Buehler Challenger & Science Center at Bergen Community College, their upcoming ARISS contact (July 2022) and a short background on proposed educational ham radio activities with their summer campers.
- Marc Wiskoff W2MBW/Jim Nagle KF4OD--The West Palm Beach Amateur Radio Group will briefly discuss their cross-over interests with astronomy/radio astronomy and the Cox Science Center in West Palm Beach

The program will be somewhat different in format from other *Kawfee Tawk* programs. The evening will be a tribute to Gagarin and a chance to discuss our hobby and its relationship to space, astronomy and radio astronomy and our mutual interests. Much like a TED Talk, each presentation stands on its own, will be brief and to the point, and they do not have to complement each other.

This should be an interesting and fun night and is a must for all those interested in the linkage of amateur radio and space. So, save the date — **Tuesday, April 12, 2022** at 7:30 PM EDT -- for this important and always relevant discussion.

For more information, please visit the club's website at www.fairlawnarc.org or call 201-791-3841.



AMATEUR RADIO TESTING BY THE FAIR LAWN AMATEUR RADIO CLUB

On March 12, 2022 the Fair Lawn Amateur Radio Club will continue amateur radio test sessions on a modified basis.

These sessions will be held at the Fair Lawn Amateur Radio Club.

The location is at 10-10 20th Street, Fair Lawn, NJ

The session starts at 9:15 AM.

A document will be provided to you prior to the date to indicate the time assigned to you.

You must have it with you to take the test.

Prior to Testing:

Send an email to wo2w@arrl.net requesting to book your spot.

PRE-REGISTRATION IS REQUIRED - NO WALK-INS ACCEPTED.

Upon Arrival:

You must have a government issued ID such as a valid driver's license or passport, a filled out Form 605, and 3 filled out copies of the FCC CSCE form.

Please Bring With You:

- You MUST bring and WEAR personal PPE items including a face mask.
- 2 pens and 2 pencils. None will be provided to you, due to possible virus transmission.
- Your FRN number, and (if licensed) a copy of your ham license or a valid CSCE (Certificate of Successful Completion Exam).
- Additionally, the \$15.00 exam fee. This is payable in cash (exact amount is a must).



How the Telegraph Helped the North Win the Civil War

with Charlie Cebula AC2ZU

2022 FLARC March 18th "Kawfee Tawk™" Series

As part of our 2022 Kawfee Tawk™ series, this month we focus on a bit of history prior to the beginnings of radio, but rather the importance of code and the telegraph in shaping the history of the country.

On March 18th, Charlie Cebula AC2ZU, a FLARC member, will discuss "How the Telegraph Helped the North Win the Civil War"

The program will begin at 7:30 PM EST via Zoom. The link is below.

The presentation will focus on why the telegraph, with support from President Lincoln, became a major contributor to success of the Union in winning the Civil War. Comparisons of North and South telegraph capability and commitment for use of the telegraph will be examined. Examples of how the telegraph helped support battlefield situational awareness and success will be presented. Some aspects of technology used in this era – such as battery technology, repeaters, use of encryption and balloon technology – will also be addressed.

Now retired, Cebula worked at Ft. Monmouth, NJ for the US Army as an Electronics Engineer (Civilian) involved with Army Command, Control and Communications Systems (1972-2009). He later worked as an Electrical Engineer for Computer Science Corporation and was also an Adjunct Instructor in the Electrical and Computer Engineering Dept at New Jersey Institute of Technology (NJIT) from 1982-2009, teaching courses in both Electrical Engineering and Electrical Engineering Technology.

So, join FLARC on March 18th and learn more about how history turned on a technology we still use in our hobby every day. If you have any questions, please contact Ed Efchak at 802-282-6700 or at wx2r@arrl.net

Zoom log-in info: https://zoom.us Telephone dial-in at +1 646 558 8656 US (New York)

Meeting ID: 857 0212 3942 Meeting ID: 857 0212 3942

Password: CIVIL Passcode: 770046

When you log in please show your FIRST NAME and your CALL SIGN.

For more information, please visit the club's website at http://www.FairLawnARC.org or call 201-791-3841.

FLARC Member Survey Presentation on March 30th

Ed WX2R will present the results of the 2022 FLARC member survey on Wednesday, March 30th at 7:30 pm via Zoom.

A record 117 members participated in the survey.

Ed will review the data and then open the floor to member discussion with the FLARC Council on directions for the balance of the year and into 2023.

The survey results will also be published on the FLARC Groups.io website the weekend prior to the meeting for your review.

Special Note: As non-profit, the IRS now requires that we disclose annually the use of paid lobbyists to our members and indicate approximately what percentage of their dues goes toward that. 0% of your 2021 dues payment will be used by the club to directly pay a lobbyist firm to lobby on behalf of all our members regarding pending legislation that impacts our hobby.

World Amateur Radio Day Is Coming! Monday, April 18th!

The clubhouse will be open from 2PM until closing for this annual operating event (not a contest). We are seeking volunteer operators and may look to set up a schedule so we can keep the station on the air.

This is a casual event to promote amateur radio in recognition of the creation of the IARU (International Amateur Radio Union) in Paris in 1925.

The club will follow all borough COVID-19 requirements for this event.



Please Note: Operating at W2NPT

Starting in January 2019 club trustees have sign-in sheets for all operating positions. There is a clipboard at Operating Position #1, #2 (digital) and #4 with a form on which to sign up for half-hour time slots. In fairness to all who want to use our club equipment and the new antennas, operation is no longer first come-first served.

Get Direct With FLARC!

Here is a direct link to specific club info: just a click away!

http://apparel.FairLawnARC.org
http://auction.FairLawnARC.org
http://blog.FairLawnARC.org
http://calendar.FairLawnARC.org
http://events.FairLawnARC.org
http://exams.FairLawnARC.org
http://facebook.FairLawnARC.org
http://news.FairLawnARC.org
http://swap.FairLawnARC.org
http://tech.FairLawnARC.org
http://youtube.FairLawnARC.org

NEW!

https://groups.io/g/FairLawnARC



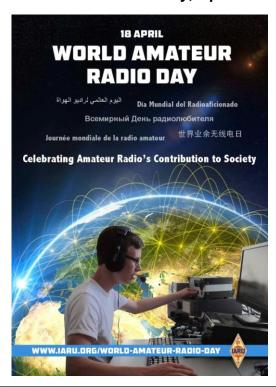
Online License Testing!

Are you looking to get your license or upgrade without leaving your home? All you need is a laptop computer with a video camera.

I have worked with both WB5QNG and AA7HW. If you have any questions, please contact me at mStevenk2sab@gmail.com

73, Steven Boston K2SAB

World Amateur Radio Day Is Coming! Save The Date: Monday, April 18th!



Ham Radio Is Contagious And It Won't Make You Sick!!

Earth Day at Great Falls and Special Event Station

The club has made a commitment to participate again at Great Falls National Historical Park in Paterson, with the National Parks Service and the Passaic County School System, in the *Earth Day Clean Up and Science Expo event*.

Schools are beginning to do field trips again and they are looking to put together an event for 2022.

The date chosen is Wednesday, April 6th.

We are planning a limited event and possibly a Special Event station W2E [Water to Electricity], with other activities as participation allows.

Follow *groups.io* for more details.



Club Apparel — Get Them While They're RED!

Club apparel is always in vogue. Red is always "in" and your club friends all have them... you want a shirt or jacket for the next FLARC event! Great for Field Day!

Don't forget.... they're easy to order.

Go to www.hamthreads.com

or visit http://apparel.FairLawnARC.org

Check out the item selection that is posted on the FLARC website (with pictures and prices). Order the shirts or other items you want with either the regular FLARC logo or the still-cool 60th anniversary logo. Note: RED is the primary and preferred club standard shirt color.



Thom W2NZ behind the camera at the clubhouse in 2019

2022 FLARC Nets On The W2NPT Repeater:

Near and Far Net Mondays at 8PM

Health and Welfare Net Wednesdays at 7PM

W2NPT and NJ2BS Repeaters

Summer Field Day will be here before you know it!

Field Day will be here before you know it. We are looking for some members to step up and make 2022 a great event. . This should be an active group so a willingness to participate is a strong plus. Let

active group so a willingness to participate is a strong plus. Let Nomar know of your willingness to help at

FIELD DAY

np4h@aol.com

Remember: Ham Radio Is A Contact Sport!

BEQUEATHS AND DONATIONS

Planned gifts usually imply the family donation of amateur equipment to the club when someone has become a Silent Key. But it can be more. Club members might consider making a gift through a will or trust; gifts that help provide lifetime income to the club. Consult with your lawyer, estate planner or tax advisor if you feel such as gift is worthy.

About The Club

The Resonator is published monthly and is the official (and only) newsletter of The Fair Lawn Amateur Radio Club. FLARC was established in 1956 and has met continuously since inception. The club is sponsored by the Borough of Fair Lawn. The club meets every Friday, except when a Kawfee Tawk is scheduled, at 6PM at the club station in The Fair Lawn Community Center, 10-10 20th Street, Fair Lawn, NJ. Business meetings are the first Friday of the month at 7:30 PM at the club, and on Zoom.

Visitors **ARE ALWAYS** welcome at our meetings.

FLARC operates the W2NPT repeater (145.470-PL **167.9**) located high atop the Community Center. The analog repeater is open to all amateurs for use without restrictions.

The club has over one hundred fifty paid members.

Dues are currently \$25 per year;
\$20 for new members.

and Content opinions bν expressed contributors do not necessarily reflect the policies of the Fair Lawn Amateur Radio Club, its Officers or members. Contributors grant express permission to FLARC to distribute articles in this or any issue of The Resonator. Authors also grant express permission for the use and/or repurposing of these articles, in part or in full, in other publications with credit to the original author and to The Resonator. All material is copyright ©2020. Do not copy or reproduce any of this material without the written permission of FLARC.

A Weekly Welfare net ...

The Health and Welfare Umbrella Net
Wednesdays
7PM Local
W2NPT and NJ2BS Repeaters
Open To All

PUBLICITY COMMITTEE NEWS

The Publicity Committee is now the Marketing Committee and is working to spread the good words about FLARC and help get all members involved. Interested in joining?

Drop a note to wx2r@arrl.net.



FAIR LAWN'S COMMUNICATIONS CENTER! With Our Antennas On The Roof!



Blood Donors Needed In This Time Of Emergency

The Red Cross and related organizations are in great need for blood donations since most corporate blood drives have been cancelled. This has become acute recently. Especially in these days of Covid.

<u>Communitybloodservices.com</u> has a network of offices open during the week and would really welcome folks making appointments to donate blood.

Thanks!



Separated At Birth



Ed WX2R and Tony N2SIQ

Ed WX2R and Tony N2SIQ were spotted at the Orlando Hamcation along with Ria N2RJ, Van W2DLT and Noel N2OEL.

Great weather, friends, and turnout.

Pandemic Theatre

Sometimes the best videos come from small markets (this runs about 26 minutes) This PBS video from Wyoming is worth a look.

https://www.pbs.org/video/ham-radio-in-wyoming-3lwi9p/

FLARC February 12, 2022 VE Testing Results

With VE testing back on schedule, Gene WO2W reports the following results:

Name	Call	License Earned
Joseph Kochan	KD2YTJ	Tech
Gene Kublanov	KD2YTI	Tech
Artur Wojcik	KD2YTG	Tech
John Florek Sr	KD2YRW	General
Nicholas Romaniello	KD2RIF	General
Robert Murken Jr	KD2YTH	Tech
Lee Mychajluk	KD2DZO	General
Karen Martis	KD2VFY	General

Testing for March will be at the Fair Lawn Recreation Center - with "Covid Restrictions."

See page Error! Bookmark not defined. of this

Nine Special Interest Groups [SIGs] Already Formed: Any Others?

We may be in lockdown but there is no lack of club interest. So far, we have the Radio Monitoring Group and a Digital Voice Modes, group thanks to KD2DRS and NP4H. There is also an FT8 SIG. And a POTA SIG headed up by Noel W2MSA plus a DX SIG. Also EmComm (Emergency Communications) and the Contesting SIG, managed by Van W2DLT. And the Monitoring (SWL) SIG.

Recently formed: the Raspberry pi and Arduino SIG.

Other possible groups, from the member survey, include:

- Radio Propagation
- Antennas and how they work
- Kit building
- Ham radio software)

Anyone interested in leading any of these groups...?

Please contact webmaster@FairLawnARC.org



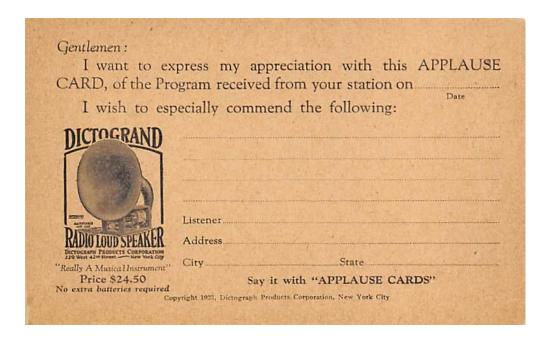
Image from May, 1926 QST, courtesy ARRL

The Way We Were By Fred Belghaus W2AAB

Odds 'n Ends

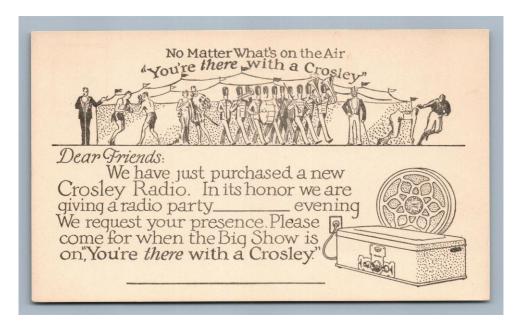
Recently, we've been looking at miscellaneous items relating to radio both amateur and commercial, through a collection of ephemera and their history. This month, we continue, deriving our material from recently collected sources.

Here's an unusual item, the likes of which have not been seen in a long time. It's an "applause card." What's that? It's a postcard sent to a radio station by listeners expressing their enjoyment of the station or a particular program carried by the station. "Applause cards" predate broadcast rating services such as Arbitron and the like, to let station operators know how popular their programming is. This "applause card" dates from the 1920s.



At left is an advertisement for the Dictogrand horn-type radio loudspeaker. It sold for \$24.50 back then. Something selling for \$24.50 in the mid 1920s would cost an astonishing \$390.32 today. [1] That's mighty pricey for a speaker that would have sounded only a little better than a single headphone with a horn!

Speaking of advertising, here's an advertising card from the Crosley Radio Company, a once major radio manufacturer. It dates from the late 1920s.



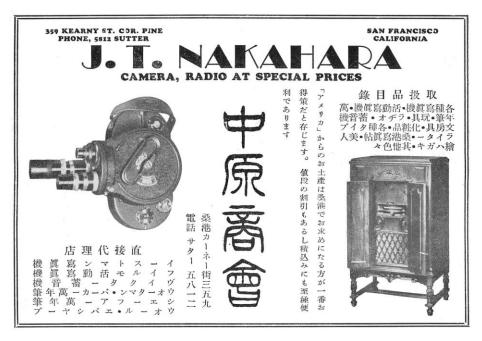
This card would have been sent by a recent purchaser, inviting family or friends to a "radio party," where the happy consumer could promote further sales of the Crosley product. The model pictured at right appears to be a model 706-60 "Showbox" made 1928 to 1929, complete with the mating "Dynacone Type F" speaker. As I write this, both are for sale on eBay at a price of \$410.00. [2]

If you had a car in the late 1940s and wanted to add an R.C.A., Motorola or Gilfillan radio, you might have hurried over to Jerry's Radio Service in San Bernardino, California for one before they were all sold out.



Jerry's Radio Service advertising card, August, 1946

On the other hand, if you happened to be in San Francisco's "Japan Town" in the 1930s, you could go to J.T. Nakahara's to buy your camera or radio at "special prices."



J.T. Nakahara advertising card, 1931

If you lived somewhere near Homestead Park, Pennsylvania in the early 1940s, you could weed out those "bad apple" tubes by buying new ones from Sylvania at J.E. Bost's.



J.E. Bost advertising card, 1940s.

There are 3 types of tubes shown at bottom left. The first one is one of the "old style" glass tubes having either 4, 5, 6, or 7 pins, dating from the late 1920s through the mid 1930s. The middle tube figure is an all metal octal-type, originally developed around

1934, and used extensively until the early 1950s. The tube figure on the right is a "Loctal" (also spelled "Loktal") type, patented by Sylvania in the 1940s. These had up to 8 pins, but with smaller pins than standard "octal" types, and having special mating sockets that allowed them to be twist-locked in place. These were designed originally for mobile radios, in an effort to prevent loosening due to vibration. They were still used in the early 1950s, but soon fell out of favor because once locked in the socket, they were often difficult to remove without damaging them.

While we're on the subject of tubes, the Antique Wireless Association has one of the finest museums in the country, featuring collections of antique and vintage radio equipment (both broadcast and communications type), televisions, military, telegraph keys and instruments, microphones, teletype equipment, and tubes. Here's an early photo of founder Bruce Kelley, W2ICE, taken in their "tube room" in 1953. Their collection has grown much larger since then!



Anyone having an interest in antique and vintage equipment and/or electronics history should check out their website, and consider joining this fine organization. Their museum is located at Bloomfield, upstate New York in Ontario County, near Canandaigua. Here's a link to their website:

https://www.antiquewireless.org/homepage/

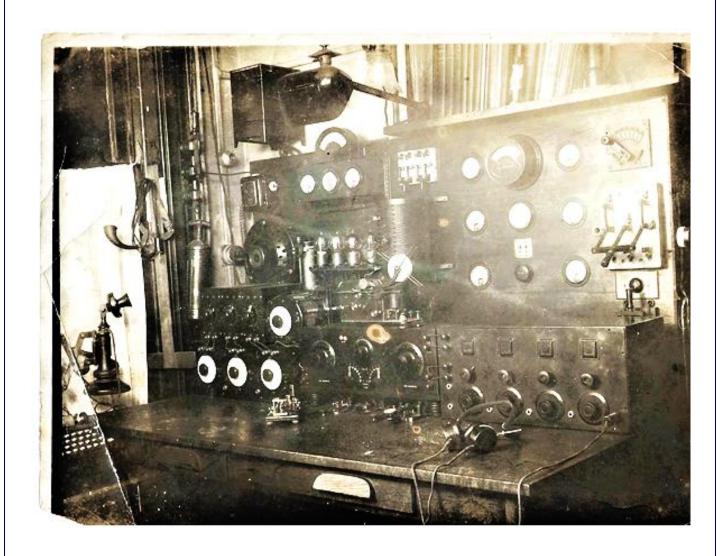
Details on their Technology Museum can be found here:

https://www.antiquewireless.org/homepage/virtual-tour/

The A.W.A. has an amateur station, W2AN on site. They also have nets on 75 and 40 meters, and sponsor several on the air contests for stations using vintage transmitters and receivers.

Their most challenging on-air contest is the "1929 QSO Party," in which members and non-members may participate, using home-built transmitters, mainly Hartley oscillators, built in the same style as would have been built in 1929. FLARC member Fred Wawra, W2ABE, is active on their 75 meter net.

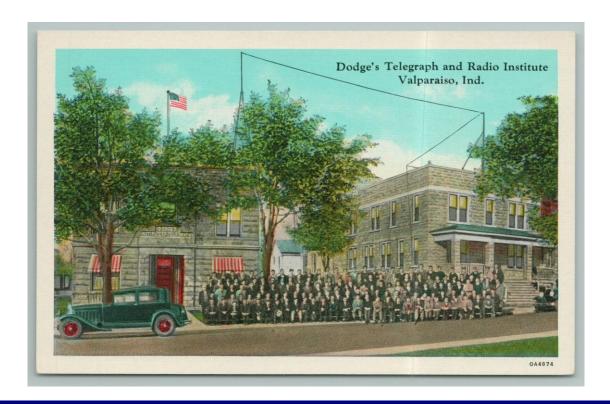
Here's an old photo of what looks like a commercial CW station of some kind, running high power. It dates from the early 1920s.



Here's a postcard from an early radio school, Dodge's Telegraph, Railway and Radio Wireless Institute, in Valparaiso, Indiana. The postcard dates from 1918.



By the 1920s, the name was changed to Dodge's Telegraph and Radio Institute.



Dodge's schools were once the largest of their kind in the United States. In 1944, the name was changed to The Valparaiso Technical Institute, operating until 1991, following the retirement of their instructors. [3]

Here's a view of the Centralia, Illinois City Hall from the 1940s. The radio tower is most likely for their police department station.



Most police departments in the 1930s and '40s used frequencies just above the AM broadcast band to communicate with their squad cars. Originally, they only "broadcast" their instructions, the squad cars only having receivers and no transmitters. Transmitters were added later. Some departments continued to use these Medium Frequencies for communications even later than the 1940s.

I distinctly remember hearing one of these in the early 1960s. I believe it was the City of Chicago Police Department station, transmitting with AM on around 1700 kHz. I don't remember the call letters, but it was a 4-letter call, just like a broadcast station.

By that time, though, most departments had already switched to FM on VHF "Low Band," (30 to 49 MHz) using FM, and later, "High Band," (152 to 174 MHz), then UHF (450 to 520 MHz) using Narrow Band FM.

Here's an interesting "antenna farm." It is located at Grand Island, Nebraska, sometime in the 1950s. No amateur wanted to receive a "QSL" from this station.



If you haven't guessed by now who the owner of this station is, it's the F.C.C. Grand Island Monitoring Station, the one that sends out "pink slips" to amateur and commercial stations violating F.C.C. Rules. All the receiving antennas are switchable arrays of verticals.

Here's another Government radio station, at the U.S. Naval Armory at Indianapolis, from the 1940s or early '50s.



Built in the 1930s as part of a WPA (Works Progress Administration) project, the facility was originally used for training personnel in the Naval and Marine Corps Reserves. Later known as the Heslar Naval Armory, it was decommissioned in 2015, and the building has since been restored and is now occupied by the Riverside High School in Indianapolis. [4] Indianapolis Classical Schools commissioned the restoration, winning the coveted Indiana Landmarks Cook Cup in 2020, for best restoration of a historic building. [5]

How about some more antennas? These are all of one type, and quite large, and used for serious scientific inquiry. The first is in Green Bank, West Virginia.



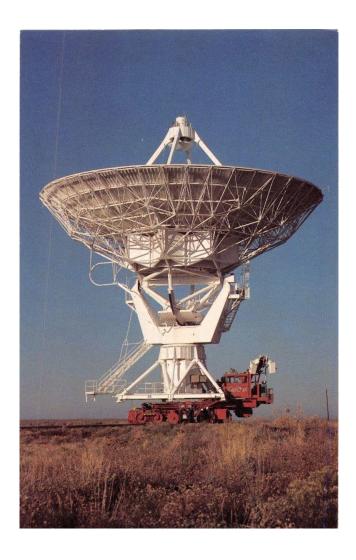
The postcard dates from the 1960s. Its proper name is the Robert C. Byrd Green Bank Telescope. It has a diameter of 300 feet and weighs 17 million pounds. It operates at millimeter wavelengths, with a full frequency range of 100 Megahertz to 116 Gigahertz. The big dish is capable of covering 85% of the celestial sphere, and the surface is perfectly smooth to 260 microns, or about the size of five human hairs. [6] It is operated by the National Radio Astronomy Observatory.

For a more detailed description of this facility, please refer to the National Radio Astronomy Observatory website, at: https://public.nrao.edu/telescopes/gbt/

The Green Bank Radio Telescope was first named in honor of Grote Reber, the radio amateur (W9GFZ) and radio engineer from Wheaton, Illinois, who did independent experiments with radio astronomy in the 1930s by building a 31 foot dish in his backyard. As in so many other examples, though, Green Bank, America's first radio telescope, was re-named for Senator Robert Byrd, the politician who had lobbied Congress for money to build the facility, ignoring the man who first inspired its very existence. You can read more about Reber's efforts here:

https://greenbankobservatory.org/science/telescopes/reber-telelescope/

Our next subject is the VLA (Very Large Array) located at Socorro, New Mexico.



This undated postcard shows only one of 27 such antennas located on the plains of San Agustin, which is actually 50 miles west of Socorro. It is properly named the

Karl G. Jansky Very Large Array, [7] after the pioneering physicist and engineer who first explored the possibilities of radio astronomy. An entire article could be written on Jansky and his work, but among other radio projects, he assisted in the construction of two early radio stations, 9XM in Wisconsin (now WHA), and 9XI in Minnesota (now KUOM). One of his earliest assignments when working for Bell Labs was the investigation of radio static and its effect on radio communications systems. [8] These studies led Jansky into the discovery of galactic noise sources and ultimately, to radio astronomy.

The Socorro VLA's 27 dishes are arranged in a "Y" configuration, each one 25 meters (82 feet) in diameter, and the signal data from all dishes combined to provide a high degree of resolution, equivalent to a single large antenna 22 miles across. [9]

Here's one more big antenna, formerly known as the Nuffield Radio Observatory:



In this also undated postcard, we see the 250 foot diameter dish, now known as the Jodrell Bank Observatory. It is located some 20 miles south of Manchester, England. Construction began in 1952, following the efforts of physicist Alfred Charles Bernard Lovell. In 1939, while Assistant Lecturer at the Physics Department at Manchester

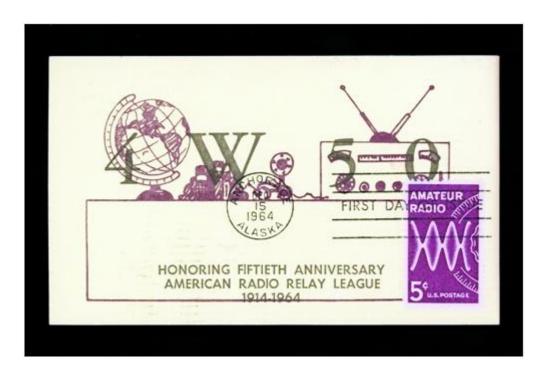
University, he was "conscripted" by the British Air Ministry to develop centimeter wave RADAR equipment for the war effort. While undertaking these efforts, he observed unexplained "echoes" from RADAR sources, and following the war's end in 1945, and upon his return to the University, he began work exploring the possibility that these "echoes" might be caused by cosmic ray particles colliding with the earth's atmosphere. [10]

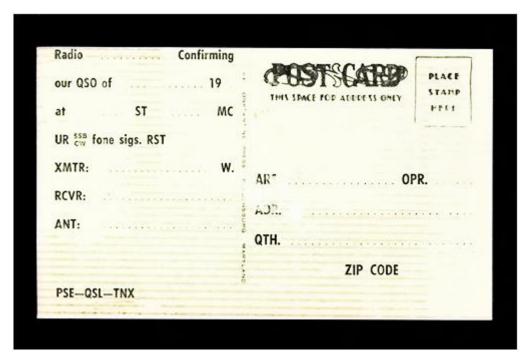
With the help of students, he set up a radio observatory using war surplus RADAR equipment, leading to the conclusion that these "echoes" were caused by meteors entering the earth's atmosphere. This led to further studies of meteors, and a larger antenna was constructed, leading to yet another conclusion: that some of the noise sources observed were of intergalactic origin. In 1950, he began a campaign to build a 250 foot steerable radio telescope, which was finally achieved two years later. [11]

But the project came under fire from the government's Department of Science and Industrial Research due to cost overruns, and its future was in doubt. Lovell remained firm in his support of it, however, and after a number of battles with government officials, he triumphed, after it was discovered that the big dish was one of the first to successfully track the world's first satellite, "Sputnik,"[12] launched by the Soviet Union in 1957. The launch of Sputnik sent shockwaves across the Free World as a possible threat to the West. Donors came forward, including the Nuffield Foundation and Lord Nuffield himself, helping to write off the debts incurred. By 1969, the facility became the Nuffield Radio Astronomy Laboratory. These further efforts resulted in the discovery of quasars and provided partial verification of Einstein's Theory of Relativity, along with the use of linked telescopes to improve the resolution of sources observed. [13]

Here's a mystery. This is a First Day card with cancellation of the "Amateur Radio Stamp," issued in 1964, and honoring the 50th anniversary of the A.R.R.L. Now, that would normally not be something mysterious, but in this case, I must admit to more than a little confusion.

The card has what appears to be a call sign, "4W50," which would be a call sign licensed to Yemen. But the card bears a U.S.A. stamp, and it shows a cancellation from Anchorage, Alaska. To add to the mystery, the reverse side of the card, which includes the same data that would be included on a QSL card, contains no comments that might help solve this mystery. Take a look...





A search of the callsign "4W50" turns up no results, so I'm stumped. By the way, when the "Amateur Radio Stamp" was released in 1964, the reaction was, to say the least, quite negative. Ham friends of mine, as well as comments heard over the air included such remarks as, "Part of a dial and a 'scope pattern? Is *that* what ham radio is all about?" Other remarks cannot be included here for propriety. Beyond the fact that

the "50" refers to the A.R.R.L.'s 50th Anniversary, why is the "4W" before it? If you have an idea, contact me.

Here's a look back to the early 1930s, or just before. It's a photograph of a rather well-equipped amateur station, but there are no discernible call letters on it to identify the owner.



At left, on a bench, is the station receiver, which is likely a typical home-built regenerative set of the day. Just above is a collection of QSL cards tacked to the shack wall. To the right of the receiver is a microphone on a stand. At extreme right are the transmitter and modulator, with power supplies. All units are constructed in "breadboard" style on a wooden frame with heavy black panels, made either of phenolic or possibly, slate. Note the large number of meters. Evidently, the amateur building this station wanted to measure all applicable voltages and currents for each stage. One or more of those meters may also be RF Ammeters to measure antenna current.

This was quite an ambitious station for that period, and probably ran power in the 100 to 250 Watt range.

FLARC typically operates a satellite station every year on its Field Day set-up for extra points. But satellite operation by the club is nothing new. From the FLARC "vault," here's documented evidence of operation via Oscar 6 by the club back in 1973, with FLARC's original club call, WB2RLO, and at our previous address.



The card confirms a CW contact with W1JSM in New Hampshire via Oscar 6 on August 27th, 1973, using an RCA transmitter on 10 meters, and receiving on 2 meters with a Heathkit SB-301 (with VHF converter). The 10 meter transmitting antenna was a Mosley TA-33 Triband beam, and for 2 meter receiving, a 5-element Yagi at 30 degrees elevation. The orbit number was 3,949. The card is signed by "Ken" with no call sign. Can anyone identify who "Ken" was?

Earlier in this month's column, we featured a postcard showing the famous F.C.C. Monitoring Station at Grand Island, Nebraska. Well, here's another "QSL" that no ham wants to get.

A.R.R.L. OFFICIAL OBSERVER'S COOPERATIVE REPORT
A.R.R.D. OFFICIAL OBSERVER'S GOOTERATIVE REPORT
(RER) Dear
Your signals were RST 577 on 14,360 kc. ± 5 kc.
JAN 13 1958 2020 = (alling) (1/1) AV
JAN 1 3 1958 on. (date) (date) (date) (date) (date) (date)
FCC monitoring stations are checking violations of all amateur regulations. This friendly notice is to invite attention to the above noted off-frequency operation resulting from harmonic (or parasitic) radiations so that you
may get at the trouble and avoid official citations. Harmonics are at integral multiples of the operating frequency, while parasitics are at any frequency, almost always unstable, chirpy and rough with considerable drift.
Data on parasitic elimination and harmonic reduction may be found in the ARRL Handbook. Also see "Keep Your Harmonics At Home" page 13, November, 1946 QST. Suggestions for reduction of harmonic radiation: 1. Use
an antenna tuner. 2. Link couple antenna tuner to final. 3. Ground one side or center-tap of the link. 4. Ground the transmitter chassis. 5. Check transmitter for proper drive bias, and neutralization. 6. Try a Faraday shield.
To check results, ask at least three other amateurs to look for the offending signal, since skip. QRN, or QRM may be present. Better still, arrange with the Official Observer who sends you this card for a check at some scheduled
time.
Would welcome a line from you on how you fixed your trouble — to help others
KEITH CHAMBERS, W8SSA Sun Chambre
Address Bluefield, West Va.
Form 22 6000-9/57 ARRL Official Observer, Class
Villa 2

This is an old style Official Observer (O.O.) Report. It was sent by W8SSA of Bluefield, West Virginia in 1958 to a Novice Class ham in Rhode Island. The O.O. copied the Novice's signal on 14.360 MHz (or thereabouts) having a signal with a rough A.C. note on his CW transmission. Of course, this is the result of a second harmonic of the Novice's signal transmitted on approximately 7.180 MHz in the old 40 meter Novice band. Novices were not allowed on 20 meters, and even worse, 14.360 is 10 kilohertz outside the 20 meter phone band!

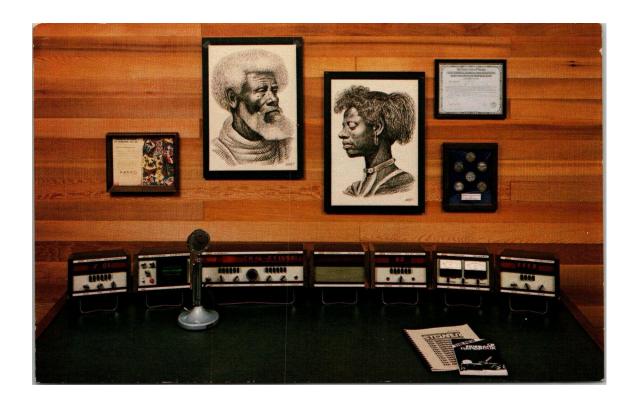
It can hardly be imagined by today's amateurs the fear in the minds of hams back then when they got an F.C.C. "Pink Slip" (Notice of Violation), or even an O.O. card like this one. Although the O.O.'s had no enforcement power, they always meant well, informing hams of problems with their signals or possible violations of F.C.C. regulations. Your columnist received a few O.O. cards himself back in his Novice days for harmonics in the 7.4 MHz range, due to tuning up his 80 meter transmitter on the second harmonic. That was fairly common when using 1950s era transmitters that featured a pi-network output circuit.

Postscript: In later years, yours truly became an O.O. himself, and sent out cards like this one, chiefly to beginners, only to inform them of problems in their transmitters or tune-up procedure. I quit the O.O. program after getting too many nasty letters back! I could tell several funny stories about some of these, as can all former O.O.'s. Oh, the hard life of the O.O. can only be imagined, as well. Today, the A.R.R.L. has a new program that is a cooperative effort with the F.C.C. to replace the old O.O. program, in an attempt to keep the bands free of dirty signals and poor practices. If you get one of their notices, don't panic, just respond and fix the problem, and be thankful that it isn't directly from the F.C.C.

Now, here's an interesting postcard. I'm not certain about when it dates from, because there's no date on it, and no information filled out in the spaces on the back. It looks like a very high-end amateur station, consisting of a 1970s era HF transceiver, microphone, and several accessory items, including what appear to be a power supply, frequency counters, and a possible SWR/power meter. I know amateur radio equipment of the past pretty well, but I don't recognize any of this manufacturer's equipment.

On the wall, at right is either a First Class Radiotelephone Operator's License or possibly an Amateur Extra Class License in frame, from the days when the F.C.C.

actually provided a blue certificate to Amateur Extra Class licensees that looked much like a "First 'Phone" license, upon request. But no, this station is something quite different.



The reverse side of the card identifies the manufacturer as "Stoner SSB, The Sideband People," and describes this station as their "Stoner SSB System." Doing some research online, I discovered that this station is not for hams. It's a high-end CB station!

The transceiver is Model "Pro-40," a 40 channel CB SSB rig, whose suggested use is for working "skip" on CB, and targeting its customer base as being "tailored to the needs of the professional CB operator." [14] The rig features "microprocessor frequency selection" and permits pushbutton scanning up and down the channels. Digital readout is included, and there is provision for AM operation (when "slumming," no doubt on the otherwise "professional" CB channels)!

Who was behind this "professional" CB station? Don Stoner, whose ham call was W6TNS, and very famous call letters they once were. In the 1950s, Stoner wrote innumerable technical articles in radio and electronics magazines, especially those promoting the newly available transistors used for various projects. He frequently wrote for *Popular Electronics*, and later wrote a regular column for *CQ Magazine* concentrating on amateur radio applications for transistors.

In 1960, he was one of the major forces behind Project OSCAR, the first effort to buildand launch an amateur radio satellite. Construction began in 1961, and

concluded with the launch of OSCAR in 1962. In later years, he became expert at dealing with restrictive covenants that prevented amateurs from installing antennas at their living quarters. Don became a Silent Key in 1999. [15]

It's amazing what a few old postcards can do in bringing to light some interesting history. There are still some more of these in my archive, and I will be sharing them with you in my next column.

Until next month, 73,

Fred W2AAB

NOTES:

[1] "U.S. Inflation Calculator," at: https://www.usinflationcalculator.com/

[2] "1928/9 Crosley Showbox 706-60 Depression Era 8-Tube Table Radio, Type F Speaker," at: https://www.ebay.com/itm/124991934777?hash=item1d1a199139:g:ZM4AAOSwRZphfXDA

[3] Wikipedia article, "Valparaiso Technical Institute," at:

https://en.wikipedia.org/wiki/Valparaiso Technical Institute

[4] Walser, Lauren, "Indianapolis High School Drops Anchor in Former Naval Armory," *Preservation Magazine*, Spring, 2019, at: https://savingplaces.org/stories/indianapolis-high-school-drops-anchor-in-former-naval-armory

[5] Indiana Landmarks Press Release, "Naval Armory Conversion Wins State's Top Restoration Prize," *Indiana Landmarks website*, March 5, 2020, at:

https://www.indianalandmarks.org/2020/03/naval-armory-conversion-wins-states-top-restoration-prize/

[6] "Green Bank Telescope," Green Bank Observatory website, at:

https://greenbankobservatory.org/science/telescopes/gbt/

[7] "Welcome to the Very Large Array," National Radio Astronomy Observatory website, at: http://www.vla.nrao.edu/

[8] Wikipedia article: "Karl Guthe Jansky," at: https://en.wikipedia.org/wiki/Karl Guthe Jansky

[9] Op. Cit., Note [7]

[10] Davies, Rodney, "Sir Bernard Lovell: Radio astronomer and driving force behind the Jodrell Bank telescope," *The Independent,* 14 August, 2012, at: https://www.independent.co.uk/news/obituaries/sir-bernard-lovell-radio-astronomer-and-driving-force-behind-the-jodrell-bank-telescope-8046704.html

[11] Ibid.

[12] "Sputnik" (Russian: Спутник). The word means "satellite" or "companion." It could be used to describe a human companion, especially one who is inseparable from another.

[13] Op Cit., Davies.

[14] "Stoner Pro-40 SSB Radio," Radioaficion website, 2 April, 2011, at:

http://radioaficion.com/mods/stoner-pro-40-ssb-cb-radio/

[15] (Ballantine, Robert R.), W8SU, "Donald L. Stoner W6TNS," at: http://www.oldgslcards.com/w6tns.pdf

NJARC Radio Museum at Infoage

by Brian Cirulnick KD2KLN

With the warmer weather upon us, it's high time for a road trip to the Jersey Shore. If you're headed in that direction, you definitely want to make a stop at 2201 Marconi Road in Wall Township. This is the location of the InfoAge Science and Technology Museum.

InfoAge is a very unusual place. It was originally a Marconi wireless telegraph site, and then became the Camp Evans Signal Corps Laboratory and Military Base, and was pivotal in radar development during WWII. It later was decommissioned by the Clinton Administration and given to the town.

Instead of selling the land for development, they decided to allow the creation of a science museum on the land. InfoAge is a member of the Association of Science-Technology Centers and part of the NASA Digital Learning Network. Its focus is science and the scientific and military history of Camp Evans. Exhibits and participating organizations include computers, electronic warfare, a Cold War-era fallout shelter, vintage radio, the National Broadcasters Hall of Fame and Museum, The Computer Deconstruction Laboratory, and the New Jersey Shipwreck Museum. Each part of InfoAge is really its own museum, usually run by a particular club.

The New Jersey Antique Radio Club (www.njarc.org) runs the Radio Technology Museum, and let me tell you, those guys have done a fabulous job. Although there are many other things to do and see at InfoAge, for Hams in particular, very little beats this portion of it. The museum traces the development of radio from before spark-gap to beyond cell-phones. Many types of telephones also populate the museum -- because now-a-days, most people are holding 6 radios in their pocket -- that's what is inside the common "smart phone."

As the museum is built with younger enthusiasts in mind, there are plenty of "hands on" demonstrations of how things work, ranging from a Jacobs Ladder and Tesla Coil to a Theremin you can play (assuming you know how to play a Theremin). They even have their own ham radio station in the museum.

The Museum is open every Wednesday, Saturday and Sunday from 1-5pm, and is well worth the trip from North Jersey to Wall Township. FLARC members will not be disappointed. (FYI, once you are done at the museum, drive another 500 yards down the street to the TIROS satellite dish, that's also worth a look).



A "hands on" Armstrong Regenerative Receiver that visitors can make adjustments to.



A selection of typical "living room" radios from the 1940s.



A working "crank" telephone from the early 1900s.



A shiny object that caught my eye ... very fancy !!



Crawford Radio from the 1920s, beautifully restored.



Look very carefully and you will see the author of this article on TV.

EmComm Special Interest Group [Emergency Communications]

Fair Lawn ARES / RACES Corner





Hello ARES members, RACES members and friends,

From time to time the ARES and RACES members along with the FLARC get together to promote amateur radio to various organizations in town.

We were invited by Fair Lawn CERT (Community Emergency Response Team) to provide a radio handling and emergency communications presentation on Thursday, March 3rd. This was our first presentation in more than two years due to the pandemic.

The CERT personnel were welcoming, they asked questions and were quite interested in our one hour plus presentation / demonstration.

It's important to publicize ourselves to the community at large to inform them about who we are and what we may do in the event of an emergency. Jim N2JLF and Karl W2KBF gave an FL DIGI demonstration, which impressed all attendees.

It takes a team to make such a presentation possible. I'd like to thank the following people who prepared the slides, gave the presentation to CERT or were on the air as part of the presentation: Nomar NP4H, Ed WX2R, Jim N2JLF, Luisa KD2WYX, Karl W2KBF, Peter W2HP, Dan KD2WYW, Marvin N2JLZ. I hope I didn't forget about anyone.

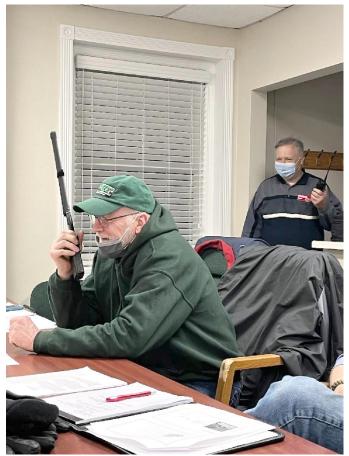
Other News / Events - FL RACES will be the Net Control Station for the Bergen County RACES Net on Wednesday, March 23rd at 7:45 PM. We host the BC RACES Net twice per year as one of thirteen communities which take part in the BC RACES Net.

Stay tuned for info on our plans for the Memorial Day Parade, which takes place on Monday, May 30th, and Fair Lawn Fireworks Night. FL ARES will be assisting the FLARC sometime in both of these events.

FL ARES and FL RACES thank the Fair Lawn Amateur Radio Club for the use of their Repeater. Our Nets occur every Wednesday Night at 8:00 PM.

Thank you!

David KD2MOB FL ARES EC and FL RACES President



Jim N2JLF [front] and David KD2MOB [rear] give communications demo to Fair Lawn NJ CERT volunteers.



Ed WX2R returns to the clubhouse on March 4th with his circa 1990 FLARC jacket

FLARC Field Day 2022 Plans

I'll be calling for a FD committee zoom meeting soon, so we can start planning and delegating responsibilities. Gene WO2X already requested a permit for memorial park, picnic areas A and B.

Date: June 25-26

Location: Memorial Park

Avenue of Heroes

Fair Lawn, NJ

Field Day 2022 Volunteers:

Noel W2MSA Nomar NP4H Dave KD2JIP Van W2DLT Brian KD2KLN Ken W2SCT Jim W2JC Ed WX2R

Field Day 2022 Rules link:

http://www.arrl.org/news/view/some-new-rules-going-into-effect-this-year-for-arrl-field-day

We need more volunteers for Field Day.

Please email Noel W2MSA.

73,

Noel W2MSA

FLARC Field Day Chairman

FLARC WORDLE

R

G	R	E	A	T
F	L	A	R	C

D



I

0

Around the Shack

Hal Kennedy N4GG/4

Weatherproofing Coax Connections

It's a rare station that doesn't have a few PL-259s out back that need to be "sealed" from the weather. Left unprotected, water quickly enters coax connectors and, via the connector, enters the coax itself. The shield in coax cable has lots of surface area and lots of open spaces. It is a perfect medium for capillary action.

You will encounter used coax where the copper shield is black. That's from water incursion and that coax is useless. What has always amazed me is how far back from the "wet end" the shield can be black. I have stripped coax back 10 feet and the shield is still black. Coax loves to soak up water.

Many old timers know the basics for weatherproofing coax connections yet there are a few techniques many seem unaware of. Newer hams may not know the techniques at all, so I'll cover the subject as thoroughly as I can this month.

Before I get to how to weatherproof a coax connection using best practices, I'd like to note how many YouTube videos there are on these subjects that describe poor practices. I'm surprised how bad some of them are. Two videos in particular have been posted by respected companies in the ham market who should know better. They are embarrassing. I'll provide screen captures below depicting egregiously bad advice.

The basics for obtaining good weatherproofing are simple. What are required are two types of tape and a pair of scissors (or diagonal cutters). That's all you need.

Here are the techniques and tips. I'll use a typical PL-259 to barrel to PL-259 splice as an example, but the same techniques apply to other outdoor connections. After the discussion on techniques, I'll describe the materials used.

- Start with clean, quality connectors. I did an Around the Shack column on UHF connectors some time ago; there are lots of bad ones available at hamfests for \$1. "Amphenol or not at all" will set you back \$4 a connector and be worth every penny. The PL-259 center pins should slide snugly into the barrel connector. If they don't STOP. Find connectors that provide a snug fit. You are about to seal the connection under layers of tape making it hard to troubleshoot and repair later.
- Seat the nipples (the tiny serrations) on the PL-259s into the indents in the barrel and tighten the PL-259s with pliers (one on each connector). More than hand tight, less than "pipe wrench" tight.
- Wrap the connection with self-amalgamating rubber based tape. The start of the wrapping should begin at or near the center of the connectors, NOT AT THE OUTSIDE EDGE OF THE WRAPPING (Figure 1). Each lap of the tape should overlap the prior lap by approximately 50%. The tape should be pulled tight as it is applied tight enough to reduce its width by about 25%. It can be pulled to near its breaking point to get into voids at critical spots. The end of the wrapping should be cut from the roll with scissors or diagonal pliers. DO NOT yank the tape apart with your hands. On the final layer, circle back from the edge of the wrap back toward the center. We want the starting end of the tape buried under tape and the end of the tape to end near the center and not at the end of the layer. The self-amalgamating tape layer should extend at least two inches past the end of the connectors.
- Wrap over the self-amalgamating tape with vinyl based tape. Again, the start and finish of the wrap should not be at the ends of the layer. Start the wrap in the middle of the splice. End the wrap by circling back from the finish end. Layers should be about 50% overlapped and the end should be cut from the roll, not yanked apart. The 3M data sheet (for the products described below) recommends pulling with sufficient force to narrow the tape to approximately 5/8ths its original width. This number is not critical. This vinyl layer should extend at least one inch further out than the ends of the self-amalgamating tape underneath.

Around the Shack, continued

Materials and Concepts

3M makes an excellent self-amalgamating rubber-based tape: Scotch 130C. Scotch 2155 (Temflex) also works well. Personally, this is one area where I have had good luck buying hamfest "mystery tape" for the intended purpose. For years it has been \$6 a roll – it never seems to change. Make sure the tape is self-amalgamating – it will have a layer of Mylar between the tape layers to prevent it from bonding to itself. Most self-amalgamating rubber tape is not UV resistant. It provides weatherproofing, but it can't stand long exposure to the sun.

For decades hams have used Scotch 33 (now called Scotch Super 33+) as the outer tape layer. It is there primarily for UV protection for the underlying rubber tape, but it has another important purpose. Scotch Super 33+ is abrasion and puncture resistant - rubber tape is not. Most connections rub against tower legs, get dragged across terrain, rub on rotors when used as rotor loops, etc.

3M now makes a tape similar to Super 33+, designated Scotch Super 88. Both are fine for ham radio use. Super 88 is 8.5 mils thick and provides additional abrasion resistance over Super 33+, which is 7 mils thick. Rolls of 3M Super 33+, Self-Amalgamating tape and Scotch Super 88 are shown in Figure 2.

If it occurs, water ingress will begin at the end of a tape wrap. It's nearly impossible to get the ends of a tape wrap weatherproof using two very common mistakes:

- Hand yanking the tape apart from the roll
- o Starting and / or ending a layer at the end rather than near the center of the splice.

An experiment: Take a look at the ends of tape hand-yanked off a roll. Try to get those ends to adhere properly to an underlying layer of tape or to coax – you can't do it. Beginning and ending the tape away from the ends of the splice allows application at correct pressure (stretch) to be applied at the layer ends during application.

Tape temperature performance is an interesting subject. The packaging on both Scotch Super 33+ and Super 88 list the tape temperature as 0 F to 221 degrees F. The packaging does not use the words "operating range." Since we hams use outdoor connections well below 0 F, I called 3M and asked about it. It was explained that the range 0 F to 221 F is the range 3M guarantees the tape will "retain all its properties." It can be used below 0 F with no concern for hams applications. Scotch's vinyl tapes will not embrittle until down around minus 50 F degrees. If there is a concern, it's storing tape for long time periods at high temperature. This can cause the adhesive on vinyl tape to migrate from the "sticky side" to the underlying "not sticky" side, making the tape impossible to unroll. "Don't store your tape in a hot garage - you may not be able to unroll it" was 3M's advice. EBay is known for supplying Scotch 33 that can't be unrolled. The Super 33+ data sheet indicates the tape should be applied when the temperature is between 0 F and 100 F. [Humor note: This is not the "ham way." Hams apply tape outside in howling snowing storms.]

Occasionally you my encounter a recommendation to apply silicone dielectric grease to the coax connectors as a first step. If enough is used, grease will keep water out of the connectors, but if you have worked with dielectric grease you know how difficult it is to control. Every time I've tried using it, it's gotten all over everything. Neither of the tape types will adhere to grease and it results in working with a mess. If the tape layers have been applied properly, the grease is worse than unnecessary. I recommend against using it.

Figure 3 and 4 are screen grabs (sorry for quality) of well-intentioned YouTube videos that include hand yanking rather than cutting with scissors, starting winding at the edges instead of the center of the splice and not adding a UV protective layer.

Good luck weatherproofing your outdoor connections. If you use proper materials and follow tried and true methods you will have weatherproof connections that will be trouble free for years.

Please note: Scotch, Super 33+, Temflex and the Scotch plaid design are all registered trademarks of 3M company.

73, Hal N4GG/4 [Referenced Figures on are the following page.]

Around the Shack, continued



Figure 1.
Begin tape layers at the center of the splice, not at the ends.



Figure 2. Scotch Super 33+ tape, self-amalgamating tape and Scotch Super 88 tape.



Figure 3.

A screen grab from YouTube demonstrating two mistakes. The tape end is at the end of the wrap and not circled back toward the center, and, the tape is being parted from the roll by hand yanking. This end will not seal.



Figure 4.

A screen grab from YouTube demonstrating one and possibly two mistakes. A conforming putty-like material is used to "seal" the front of a PL-259 connector shell to a grounding block while leaving the back of the connector wide open to water ingress. Also, the product description makes no mention of the material's UV tolerance. Will it last in the sun? The manufacturer makes no claim.

Ed - itorial:

Building on the FLARC Member Survey – by Ed WX2R

Back when I worked for *The Record*, I was asked to be part of a special projects team. I was going to learn something named *kaizen* as it is called in Japanese.

Kaizen is a Japanese term meaning "change for the better" or "continuous improvement." It is a Japanese business philosophy regarding the processes that continuously improve operations and involve all employees. Kaizen sees improvement in productivity as a gradual and methodical process.

A lot was riding on our little team. The company was looking at efficiencies and our President suggested a leap from the traditional way of changing things. Five of us were whisked off to Tokyo to learn kaizen at Toyota. One lesson I remember vividly was on our first day at the automotive manufacturing facility in Aichi:

"Take as many pictures and notes as you would like" began our teacher or sensei. "The basis of kaizen is that when you come tomorrow, it will look differently from today." How can that be, I asked? How could changes be so dramatic in either function or appearance that I would see something different?

The answer was in the *subtlety* of improvement. The Toyota Production System (TPS) is based on micro changes made daily systematically on a large scale that improved product and profit while removing *muda* or waste from everything the organization did. You will remember that, in the old days, Japanese automobiles were considered junk. But now here was a company that had become great by setting two overarching (and audacious) goals—create an engine that would not fail and build a car that would not rust. Only product improvement and marketing remained as consumer variables. The rest, as they say, is history.

Kaizen has never left me. To fully understand it is a formula for life, much like Zen, I think. Its principles can also be carried over to FLARC; yes, our little club. The Kaizen method follows ten specific principles, which are described below:

- 1. Improve everything continuously.
- 2. Abolish old, traditional concepts.
- 3. Accept no excuses and make things happen.
- 4. Say no to the status quo of implementing new methods and assuming how they will work.

Ed - itorial, continued.

- 5. If something is wrong, correct it immediately.
- 6. Empower everyone to take part in problemsolving.
- 7. Get information and opinions from multiple people.
- Before making decisions, ask "why"-questions five times to get to the root cause.
 (5 Why Method)
- 9. Be economical. Save money through small improvements to spend the saved money on further improvements.
- 10. Remember that improvement has no limits. Never stop trying to improve.

Look again at the list and ask yourself, "Would FLARC be a better club if we practiced even a few of these principles on a formalized basis"?

How could we not become better?

In looking at new ways of doing things; getting things done; getting everyone involved in finding solutions; saving money for the important things.

Later this month I will present the 2022 edition of the FLARC Member Survey. Keeping this club active, growing and in alignment with member's needs is the survey's annual purpose.

You, as members, have provided much input to improve it. Now is the time to discuss the priorities and prepare action plans. In viewing the findings objectively, it may pay us to review the ten kaizen principles ahead of the meeting.

So let us abolish the out-moded thinking that often pervades the club.

- Let us speak with data and make no assumptions.
- Respect everyone's opinion.
- Correct problems immediately.
- Take out all the "wastes" that cost us money and member life energy.
- Remember that improvement is continuous.

This is a "great" club that wants to get even better. Let's all get started.

DE Ed WX2R

Digital Voice SIG Update



DigiVoice@FairLawnARC.groups.io

A Special Interest Group SIG for those interested in Digital Voice modes (Digital Mobile Radio) communications and software.

DMR nets have been in low attendance on Brandmeister TalkGroup 310015, Tuesday evenings at 7:00pm. Please be on time to this net as if there is no one out there, the net gets closed. We would like to thank Brad for the use of TG 310015.

There is also a FLARC "digital-voice" channel on slack, where we can all keep in touch.

310015 BrandMeister

For those interested in joining all the Digital Voice excitement! Contact Bob H. KD2BKD@optonline.net for information on the Digital Voice SIG. Or just go to the club website FairLawnARC.org and use the "Join Special Interest Group(s)" link on left.

There is a new set of software for use with the GD-77, DM-1801 and RD5R radios. It is a .zip file that is posted in the FILES area of the groups.io SIG area –

https://fairlawnarc.groups.io/g/DigiVoice/files/

This upgrade should be installed as soon as possible; BUT be sure to read the 'readme.txt' file for info on what is contained in the package — and although "nobody reads the manual" you REALLY should read the Quick Start Guide and the User Guide for your model radio. There is a lot of info in the .zip package; if you need help or clarification be sure to contact Dave, N2AAM.



Radio Monitoring Special Interest Group Update

monitoring@FairLawnARC.groups.io

A Special Interest Group SIG for those interested in SWL and other radio communications monitoring.

Medium Wave from South Florida

As many of you know, Barb and I spent January and most of February outside of West Palm Beach visiting with her sister. I tried to do some DXing from our AirBNB QTH with a Sony IC-7600 that I've had for years.

The radio performed pretty well using just the telescopic antenna. Poking around most of the east coast was a breeze with WBZ, KDKA, WPST and WJY easy catches. The nighttime blowtorches from New York of WABC, WOR, WCBS and WBBR were also there every night to catch up on the news from home. Some good catches were WPGG (1440) in Atlantic City and WDEL (1150) were also heard. Little WCFR in Springfield, VT was a nice one especially with the temperature at -9 degrees at 0200 there and a warmer 73F in WPB.

WLW in Cincinnati, WLS, WBBM (Chicago) and WWL in New Orleans were also regular catches. KMOX St. Louis and WHO in Des Moines was an old friend from my bicycling days in Iowa — had not been heard in a while.

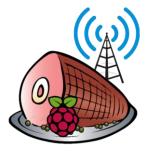
Closer to the home QTH, Radio Rebelde from Cuba was heard across multiple frequencies. ZNS Hamilton was a daytime powerhouse off the coast that rapidly disappeared after dark. A few French language stations from both Haiti and south Florida (on low power), along with CFMB (1240) from Montreal, were also logged.

I also spent some time listening to some Equadorian stations in shortwave in indigenous languages that I had never heard before. According to the WRTH, these stations were using about 250-500 watts nighttime and I found them to be quite interesting. HCJB is also still there under quite low power.

Back to medium wave: an early catch was Trans World Radio in Bonaire on 800kHz. A signal report

Raspberry Pi and Arduino SIG

FLARC has a new SIG for those who experiment and build Ham Radio equipment with Raspberry Pi and Arduino boards.



In this edition of The Resonator, check out the HAM CLOCK project. It is easy to build and well worth the effort — with all the different radio related information it can display.

You can find the Raspberry Pi and Arduino SIG web page at

https://fairlawnarc.groups.io/g/Rpi-Arduino/

There is also a FLARC "raspberry_pi_and_arduino" channel on slack, where we can keep in touch.

For those interested in joining all the Rpi-Arduino excitement!

Contact Bob H. <u>KD2BKD@optonline.net</u> for more information.

Or just go to the club website <u>FairLawnARC.org</u> and use the "Join Special Interest Group(s)" link on the left.

Swollen guts inside laptop

Lithium-Ion batteries often swell as they age. Paul W2IP noticed that the case of the laptop computer in the FLARC office had become deformed from internal swelling and he turned it over to Brian KD2KLN (our club QuarterMaster) for investigation.

Brian removed the failing battery and the laptop is now working OK with just the charger.



Radio Monitoring, continued

turned into an e-QSL the next day and a package of goodies before we left for home.

All in all, a lot of fun catching up with some old friends on the dial, mostly in the midnight to 0300 window. There is still a lot to listen to but with ownership consolidations, you really have to listen carefully for IDs, as there is not a lot of differentiation in programming — with much of the local nuance that made local radio fun pretty much lost.

Oh well.

De Ed WX2R





Dear Edward Efchak:



We confirm your 800sm reception report on Jan 11, 2022 Time: 2323 – 0000 UTC Receivers Sony IC-7300 shortwave receiver with a telescoping antenna. SINPO:4-5-4-4-4

196 Tequesta Drive Tequesta, FL USA 3346



Amateur Radio "Raspberry Pi" Projects

Bv Robert Holstrom - KD2BKD

HamClock on Raspberry Pi

Parts List

- HDMI or DVI video display
 (DVI display will require HDMI to DVI cable converter)
- Raspberry Pi I used 3b, Pi4 will work, even a Pi Zero 2 W
- Micro Flash card 4G or larger
- USB keyboard & mouse
- Appropriate USB power supply for the Pi
- Cat-5 Ethernet cable connected to Internet



Download "Raspberry Pi OS with desktop" at:

https://www.raspberrypi.com/software/operating-systems/

Download Balena Etcher at: https://www.balena.io/etcher/



Install flash and connect keyboard, mouse, 42thernet, video, then USB power to the Pi. This should boot the Pi for the 1st time. Several setup questions will be asked.

First a welcome screen may come up. Select "Next"

Set country. As Raspberry Pi was developed in the UK that is the default. I changed mine to "United States", "American English", "New York" time zone, "Use English language", and "Use US keyboard." Select "Next"

I just selected "Next" at Change Password.

The taskbar fit in the screen, so I just selected "Next"

If you plan on using wired Ethernet do not set up a Wi-Fi connection. I had issues with HamClock with Wi-Fi being set because of the location of the Pi, even with the Ethernet connected.

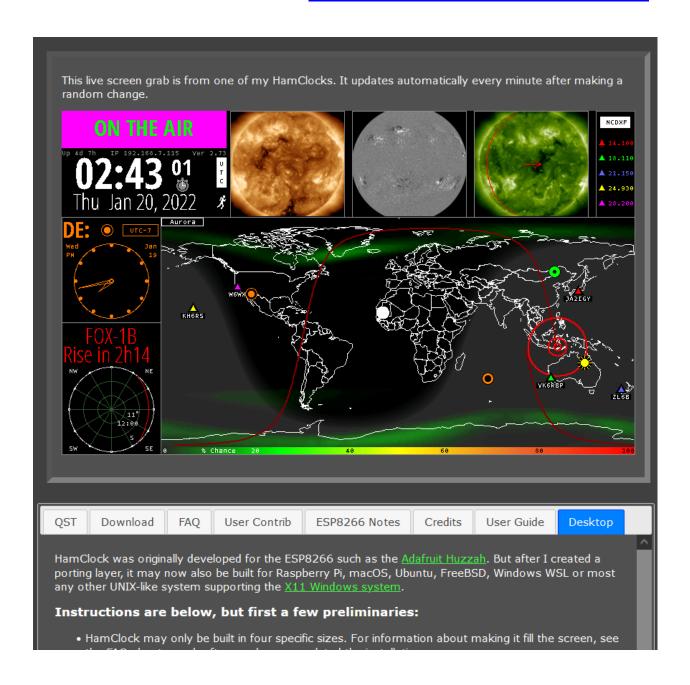
I now select "Skip"

I skipped "Update Software" because of previous problems and it took a long time.

Setup Complete should be seen and then select "Done"

Now open the web browser in the Raspberry Pi by clicking the blue world icon next on the top menu bar. In the web browser, go to URL:

https://www.clearskyinstitute.com/ham/HamClock/



Click on right most tab below the map, labeled "Desktop"

Scroll down to "To install HamClock on a Raspberry Pi follow these steps:"

Open the "Terminal" by selecting the top menu item that looks like a terminal with ">_" on the screen.

Set terminal next to the web browser. You will be copying text from the URL to the terminal screen.

Follow the steps 1 to 8 at the time of this article. As updates are made the installation may change.

Steps taken on 01/23/2022 —

To install HamClock on a Raspberry Pi follow these steps:

- 1. These instructions assume your RPi is up and running Bullseye. If not, first see the FAQ about being new to the Pi then come back here.
- Open a terminal on the target system GUI desktop by clicking on the red Raspberry → Accessories → Terminal.
 This will give you a command line prompt for the next step.
- 3. Download the installer script by running the following commands (use copy/paste to avoid typos): [after each command, press Enter key]
- 4. Cd
- 5. curl -0
 http://www.clearskyinstitute.com/ham/HamClock/install-hc rpi
 [above should be entered all on one line]
- 6. chmod u+x install-hc-rpi
- 7. Now run the script by typing the following command. Answer each question by typing y or n followed by pressing the Enter key
- 8. ./install-hc-rpi

To copy the text, scroll over it while pressing left mouse button. Release the mouse button when text is highlighted. Press right mouse button and select "Copy"

Now click in the Terminal window and right click "Paste"

Now press enter to run the command.

Each row needs to be copied and pasted in order.

Some questions will be asked when installing.

Be patient as installation takes several minutes. You should see the progress in the Terminal.

If using a standard HDMI or DVI display, select display size "1600x960". If using the Pi touchscreen select "800x480". This document only discusses the setup on HDMI or DVI display.

Install the HamClock icon to desktop.

I would suggest NOT using "HamClock" in full screen mode.

When asked to reboot do so.

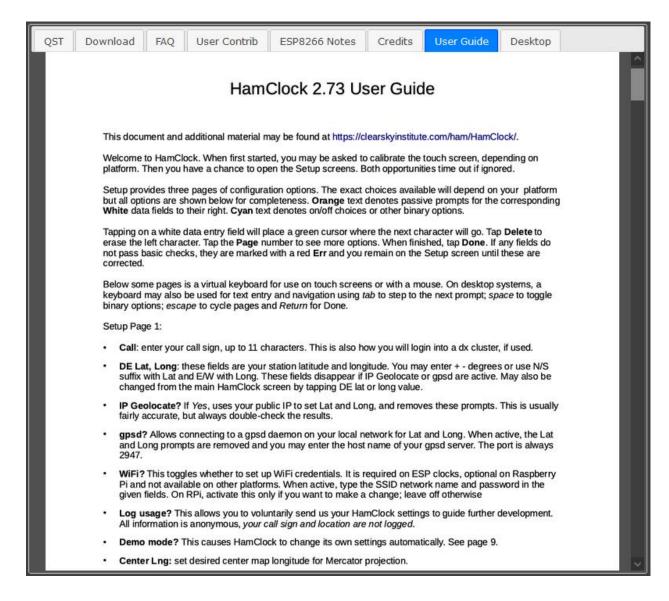
The full Raspberry Pi GUI (Graphical User Interface) should come up.

Double click the HamClock icon.

Choosing "Execute in Terminal" will allow resizing of the HamClock window.

Click in screen to set up.

The "User Guide" next to "Desktop" has all the information on how to set everything up.



Some available setup options include UTC time, Local time, current weather, stopwatch, alarm, DX Spider spots, Satellite or ISS passes, Solar flux, Sunspot activity, NOAA Space weather, and more.

GPIO on the Raspberry Pi can be used in HamClock to display temperature, pressure, humidity, timers, and more.

The original QST article can be found at:

https://www.clearskyinstitute.com/ham/HamClock/QST-HamClock.pdf



On my Ham Clock I have UTC time at the top left. Next across are: last month's sunspot numbers in graphic format, Moon information, then NOAA local weather. Location of weather information is from the Grid Square setup. Next row to the left is the local time, date, and Grid Square. Below this I chose to track the ISS. Note the countdown timer for the next ISS pass and elevation of the pass. There are many satellites and other types of information choices available. The track of ISS for the upcoming pass is seen on my Ham Clock, on the map to the right. The orange dot is my location, taken from grid square setting.

It just happens that I am into "Space Radio" with the ISS currently. There are too many different configurations for each information box to go over all of them. All the settings are described in the Ham Clock User Guide.

If anyone needs help or has questions about this project or Raspberry Pi and Arduinos in general, FLARC now has the "Rpi-Arduino" SIG (special interest group) at:

https://fairlawnarc.groups.io/g/Rpi-Arduino

There is also a complementary FLARC - Fair Lawn Amateur Radio Club SLACK Channel "raspberry_pi_and_arduino." Join one or both and ask questions and post comments.

More Amateur Radio Raspberry Pi and Arduino projects coming in future editions of "The Resonator."

Satellite Special Interest Group Update

Satellite-SIG@FairLawnARC.groups.io

A Special Interest Group SIG for those interested in amateur radio satellites, as well as others like weather, GPS, etc..



We welcome those interested in all types of satellite communications. Some interests are AMSAT, ARISS, receiving weather maps from satellites, Slow Scan TV pictures and APRS data via ISS, and much more.

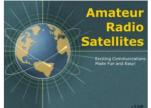
There is a new FLARC "satellites" channel on slack, so we can all keep in touch by chatting.

Recently the ARISS has gone to Cross-Band Repeater Mode on frequencies (145.990 MHz up {PL 67} & 437.800 MHz down). For help on how to talk up to the ARISS join the SIG and new "satellites" slack channel and ask for assistance.

For those interested in joining all the Space Radio excitement! Contact Bob H. KD2BKD@optonline.net for information on the Satellite-SIG. Or just go to the club website www.FairLawnARC.org and use the "Join Special Interest Group(s)" link on left.







Theoretics Demystified

There is something that we cannot live without, but never think about and that is magnetism. We know what it does and how it reacts, but we do not know what it IS. Much was learned about it in the early days of discovery. The ancients applied the words 'magnes lapes' to certain dark stones which had the ability to attract small pieces of iron and it was also discovered that those stones would orient themselves to the north and south poles of the earth when suspended on a string or floated on a piece of wood in the water - the very first compasses!

The stones were called the 'leading stone' or 'lodestone' - which is often misspelled loadstone.

There are two kinds of magnetism, or really one with two opposite polarities - that is north and south, aptly named as that is the attraction points of the early compasses. Not commonly thought about is the fact that not only are there compass devices, but also there was and is what they call a dip needle which is a vertical compass, that when oriented to the proper meridian [north and south lines of force which are not always perfectly straight] as displayed by a compass, will show that the lines of magnetic force around the earth are not necessarily always horizontal. The lines of magnetic force are not always horizontal and this is shown by the dipping down of the needle at some points along the selected meridian.

Each magnet has two poles, one called north and one called south [basic stuff]. Like poles repel and unlike poles attract. The nature of the beast is that there are always two poles and if you break a magnet in half the resultant pieces will assume the other pole from the one which was at the end before being broken.

As an aside, the magnetic poles of the earth are not exactly at the north and south points of the earth but are off center a bit and do slowly move around, in fact there have been magnetic reversals in the past and some say that there will be another one soon. An easy way to explain the

Theoretics Demystified, continued

earth's magnetic field is that the molten core of the earth, which is largely iron, moves around in convection currents and the electrical activity of those extremely hot electrons causes the magnetic field to exist. Remember, electrical flow in a wire causes a magnetic field and a magnetic field with changing lines of force cause electrical action or flow which we call electricity.

Now, for some basic terminology of magnetism. MAGNETIC FORCE is the physical reaction produced by a magnet upon any magnetically susceptible [permeable] material or another magnet.

The MAGNETIC CIRCUIT is the lines of magnetic force [known as FLUX] between the poles of a magnet or another magnetically permeable substance.

MAGNETIC FLUX is measured in units called a MAXWELL, after the Scottish scientist who experimented with magnetism.

To reiterate, Magnetic Flux is the total number of lines of magnetic force in a magnetic circuit. You can demonstrate a magnetic circuit by taking a small magnet, putting some iron filings on a piece of paper and holding the magnet under the paper, just touching it. The filings will arrange themselves in a pattern demonstrating the lines of force.

Magnetism and electricity: Oersted's discovery was the relation between the effects of an electric field, a simple number of wire turns on a wooded form with a compass needle placed within it. Applying a current caused the needle to align itself with the electrical field. This leads us to AMPERE'S RULE, which states that the current flowing in a wire flowing away from you causes the magnetic lines of force to flow in whirls at right angles to the current flow counterclockwise in relation to the conductor as you look at it goes away from you. The whirls are not stationary, but flow in the same direction as the current flow. [Maxwell's Corkscrew Rule]. It should be noted that having a coil of wire with a current passing through it, that the polarity of the magnetism created by the coil depends upon the direction of the current flow and the magnetic field whirls' direction upon the direction of the coil winding.

This leads us to magnetic material and the properties thereof. Mentioned before was PERMEABILITY which is the measure of how easy the magnetic lines of force pass through a given material. Next is MAGNEMOTIVE FORCE which can be thought of as the magnetic pressure exerted on a magnetically permeable substance by a given magnetic field [similar in comparison to voltage in an electrical circuit and a bigger magnet is similar to more amperes]. This leads to the term, RELUCTANCE, which is the measure of how a material resists the magnetomotive force. And then there is MAGNETIC SATURATION, where a magnetically permeable material can absorb a defined amount of magnetism and no more. Then there is the term HYSTERESIS, which is the lagging of magnetism, in a magnetic metal, behind the magnetizing flux which produces it and is caused by the friction between the molecules of the magnetic substance which requires energy for the molecules to change their position. This change in the molecules position takes place during magnetization or demagnetization. The energy expended is converted to heat. Note that after demagnetization, there is a bit of the magnetism left and it is called RESIDUAL MAGNETISM.

In a magnetically permeable substance that is not magnetized, the little atomic magnets are randomly scattered; after magnetization the little magnets are lined up in order.

Remember that to induce an electric current or movement of electrons, like water in a stream, that the magnetic lines of force need to be changing in the number of lines of force passing through that wire either by movement or from another conductor carrying current that is changing.

Magnetism can exist in a non-changing state, but current electricity cannot as the electrons need something to move them along whether it be chemically, or magnetically induced.

I have tried to express the physics of magnetism without too much complication, I hope.

73,

Fred Wawra, W2ABE

Planning for this year - 2022

<u>2022 Date</u>	<u>Program</u>
Wednesday, April 6	Earth Day Special Event Station at Great Falls National Historical Park
Tuesday, April 12	Yuri's Night
Monday, April 18	World Amateur Radio Day
May TBD	Portable Day with BARA
Monday, May 30	Memorial Day Parade
Sunday, June 12	Radburn Street Fair
Saturday -Sunday, June 25-26	ARRL Field Day
July TBD	Independence Day Fireworks
Friday, September 16	POW MIA Day (tentative)
September TBD	FLARC DX Camp (tentative)
Sunday, October 16	River Road Street Fair
October TBD	Portable Day with BARA
December TBD	Youth on the Air (YOTA)



In A Nutshell



Well things are finally warming up a bit; as I write this it is in the 60s and gas is in the \$4.00 range. Anyway, now all of us can start getting outside and check our antennas, get involved on Parks On The Air, POTA for short.

This writer just bought a new 20AH sealed lithium iron phosphate rechargeable battery and the special charger for it. This will be used among things for portable operation.

I also got a rechargeable portable 160-watt ac/dc power pack that can be used for running a small radio or a laptop for logging. Next are the antennas.

With all of the Covid virus restrictions being lifted, it will be easier and faster to get back to normal.

I traveled the world by radio the last couple of years and will continue to do so. Talking to someone far away and finding out about them on a routine basis is very interesting and rewarding and gives you a feeling of belonging — especially if you are on a net. The thing about ham radio is that there are no travel expenses or possible liabilities.

The hamfests have already started and they are a source of more goodies and a chance to get together with old and new friends. So get out, have some FUN and get on the air.

73, Fred Wawra, W2ABE



What Is It? - Answer To Last Month's Question

By: Fred Belghaus W2AAB



Images: eBay

Not so simple, eh? No, they're not IF transformers. They're a set of plug-in RF coils from an ARC-5 receiver, designated as MX-19/ARC-5. The yellow paint on the screws signify that they were used in the BC-454 receiver, which covered 3 to 6 MHz. The three coils are: RF Oscillator, RF Amplifier, and Antenna coil, and they were mounted beneath the chassis of the receiver. Here's an inside view:



73,

Fred W2AAB

What Is It? - March, 2022

By: Fred Belghaus W2AAB



Here's an easy one (I think, but maybe not). Yes, it's an analog meter, but what does it measure, and in what type of equipment would it be used?

Answer next month.

Good luck and 73,

Fred, W2AAB

DX Special Interest Group Update





DX contests and Cycle 25

As an avid DXer I am always looking for that rare one, the call that is active for a brief time from a distant land. With the virus situation putting the brakes on many of the planned expeditions over the last two years this has been a challenge; but the ARRL DX contest in March proved to be a terrific opportunity for some band-fills from what have previously been difficult parts of the world for me to reach.

It was like a gate was lifted on the weekend of March 6th with stations coming in from all over the globe on bands where I'd never even seen them before. One of the best for me was Vietnam on 40 meters during the day – as well as China, South Korea, Hong Kong and many other Asia / Pacific stations on 10, 12 and 15 meters. Yes, 12 is not a Contest band but I'll take what I can get when I can get it!

I was also able to fill some slots on 80 and 160 meters, including Europe which I have never been able to hear much less contact on Top Band [160m].

I didn't work hard for it either; some of the stations were coming in like neighbors at 10 to 20 over S9, and it took a single call to get my call said back to me for the contact. I am a QRO [high power] operator so that helps but this weekend I think I could have done it with 100 watts or less, but I have the available power so why risk the struggle... Right!!

I was doing this in between another facet of the hobby for me – processing logs for Parks on the Air [POTA] area 2 activators.

I'd been doing a log and noticed an alert in my logging software on another screen (I use Log4OM, which has many ways to set alerts for needed bands / calls etc..) and I'd swing over to the station I needed, get the contact logged and go back to work on the POTA logs!

Many of the ones I needed for DXCC credits have

already confirmed on LoTW and more are showing up each day. There's nothing nicer than seeing Malawi confirm on 10m or Asiatic Turkey on 15m. Well, maybe Bouvet Island on any band — but that will be had for sure given the rising conditions, if the planned DXpedition ever gets there!

A mistake I made was not treating those contacts like a true contest effort, by neglecting to log the exchange properly (with the power of each station – which was the "contest exchange" for the DX Contest). I was so excited about Cycle 25 giving us an early gift that I just focused on my band-fills.

I did accrue over 15,000 points through the 72 new fills I'd gotten and crossed my fingers when I sent the log in for review. I have not gotten a rejection notice yet so hopefully it will be accepted to credit the FRC, which I listed as the club affiliation.

I'm looking forward the next CQWW SSB contest and will be sure to get the needed data in the log for that one.

Signed "A Happy DXer",

James KB2FMH

Some reference links —

https://www.arrl.org/dxcc-award-information

https://www.arrl.org/dxcc-general-program-faq

https://www.arrl.org/dxcc-and-lotw-faq

https://www.bouvetdx.org

https://www.dx-world.net/3y0j-dxpedition-to-bouvet-island





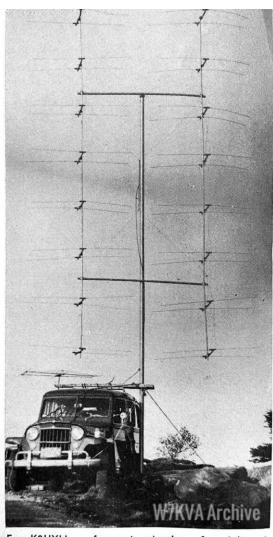


FLARC PortableOps SIG

PortableOps@FairLawnARC.groups.io

This is a Special Interest Group (SIG) for members interested in portable ham radio operation such as POTA, SOTA, IOTA, LOTA, etc.

The purpose of this SIG is to get outdoors and practice our operating skills from different places. We can share outing experiences, tips and work on our operating skills.



For K2UYH, a frequent extension of mobiling is nilltopping, which is where our camera caught him recently. Antenna is a 32-element 144 MHz collinear, while at left (barely visible) is his 3-element six meter collapsible. Normally halo antennas are employed for in-motion QSO's.

Report from Portable Ops SIG, cont'd



Noel W2MSA (in rear) & Nomar NP4H (front)

Upcoming K2T Boy Scout Conclave/POTA Special Event Station at Bear Mountain on April 2nd (and maybe April 3rd)



Thanks to James KB2FMH for facilitating Special Event Station K2T, to activate from Bear Mountain State Park K-2010 in conjunction with the Boy Scout Conclave commemorating the 100th Anniversary of the first Scout camp at Lake Kanawauke.

The callsign K2T is to signify the transition from Kanawauke 2 (to) Ten Mile River (TMR as Scouts call it). James has designed the awesome custom QSL card shown above. The station will be located on the "grassy knoll" between the Bear Mountain Inn and Lake Hessian.

The purpose of the station is to promote and celebrate the Bear Mountain Conclave sponsored by the Ten Mile River Scout Museum and Ten Mile River Alumni Association in conjunction with the Palisades Interstate Park Commission.

Portable Ops SIG, continued.

- Click https://www.tmrmuseum.org/bear-mountain-conclave for more info on the Conclave.
- Contact James Gallo KB2FMH qsl@kb2fmh.us for more details and to participate in the SES.
- And check out the awesome QRZ page while it is still showing this event: https://www.grz.com/lookup/k2t

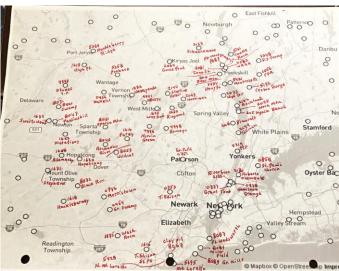
Upcoming W2E Special Event/POTA activation Paterson Great Falls on April 6th

FLARC will return to Paterson Great Falls National Historic Park K-0751 for a Special Event Station **W2E** (Water 2 Electricity) on April 6th - Contact Noel W2MSA for details and to participate.

Annotated POTA site maps by Jim W2JC

Thanks to Jim W2JC for contributing these annotated POTA site maps. Big help for those of us who don't have every local park ID memorized.





Click on each image to fetch the actual file of the map.

Portable Ops SIG, continued.

Twin Lighthouse and two lighthouses in one day

I [KA2YRA] recently took a pleasant drive down to Monmouth County, NJ to activate from the Twin Lighthouse State Historic Site K-0180 and the Sandy Hook Lighthouse, part of the Gateway National Recreation Area K-0680. Both are within the NJ Coastal State Trail K-6544 so they each qualified as a 2-fer (2 parks in one).

At Twin Lights I met with the Site Historian and discussed opportunities to operate from there as a POTA Special Event. It has an excellent museum which highlights Marconi and wireless, and even has a key and buzzer to demonstrate sending code.



Climbing the North Tower provides an awesome view of Sandy Hook Bay, the entrance to the New York Harbor and the Atlantic Ocean.



Just across the bridge is the Sandy Hook Lighthouse, the oldest working lighthouse in the United States. When opened in 1764 it stood only 500 feet (150 metres) from the tip of Sandy Hook; however, today, due to growth caused by littoral drift, it is almost one and a half miles (2.4 km) inland from the tip.



Portable Ops is all about taking our stations to places that don't usually have ham radio and finding ways to get the best results — and the POTA Parks On The Air program has given many of us tremendous incentive to do just that !! With the added benefit of an excuse to visit parks and historic sites we'd haven't seen before.

Lots more 'stories' and photos next month. — Steve KA2YRA





For FLARC membership info and renewal/application form please visit:

membership.FairLawnARC.org

FLARC Dues, new and renewal, (and even donations!) can now be made on-line ...

[Please note that this is a temporary improvement while Dave KD2JIP works on a real, full-fledged web page for filling out the membership/renewal form and submitting that and payment on-line.]

Payments can be made using either PayPal or Zelle. Here's how –

Using PayPal —

Log into your PayPal account at

https://www.paypal.com

At top right, select "My PayPal"

Under Quick links, select "Send Money"

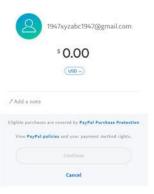
In the window showing

Name, email or mobile number enter this email address:

1947xyzabc1947@gmail.com

Click on [Next]

Enter \$ amount you are sending, & in "add a note" area type in your CALL SIGN and which year (2020 or 2021) the dues are for, & any other explanation.



Clickon [Continue]
Clickon the [Change] button
Clickon "Sending to a friend" link

CONTINUED IN NEXT COLUMN ->



No fee to use bank or balance to send to friends and family in the U.S.

You will see a summary of your transaction; if no changes are required, click on

[Send Payment Now]

to complete your transaction.

Using Zelle —

If you are using Zelle through your bank account, just send your dues to the following number: 201-240-9317

Don't forget to add in the note/message section your callsign and that it is for your 2020 and/or 2021 dues.

OR you can still use a good ol' Check or Money Order payable to FLARC - always put your Call Sign and "dues for 2020" (or 2021) on the check. MAIL TO:

Bruce <u>Kalogera</u>, NJ2BS 163 Meadow Lane Secaucus, NJ 07094



Fair Lawn Amateur Radio Club

Fuir Lawn Recreation and Community Center 10-10 20th Street Fair Lawn, N.J. 07410

MEMBERSHIP/RENEWAL FORM

12me		Cal	
Address	PO	BoxSte./Ap	it#
City	Stat	e	Cip qi.
Roster Published Phone #	Спри	blished Phone #	
Roster Published E.WAH.		License e	lass:
ARRL Member?	RACIES Member?	ARES Member ?	CICRT? VE
Additional Family Members (In san	oc household) —		
Name			Call
Name:			_ Cull
Introductory and Student Members (Students under the age of 18 eligible (Introductory membership open to a or not a member in last 7 yrs)	for student membership)	S 20	S
Associate Membership A		(No Fee)	
A Open to Fair Lawn Residents Only.	No voting rights or other p	orivileges.	
Renewal of Current Membership		\$ 25	5
Three Year Renewal Incentive		5 65	s
(Single memberships only, family me	mborships excluded)		
Additional Family Members #_	at	S S each	S
Life Membership		S 625	5
Seniar Life Membership (65 yrs. of	age or over)	S 250	S
Equipment Fund Donation, above 1	ogular membership dua	15	S
		Total submitted	S
		Da	te

Bruce Kalogera NJ2BK 163 Meadow Lane

Please Note: Memberships are NOT Pro-Rated. Membership is from Jan 1⁸¹ to Dec. 31⁸¹ of any given year unless documented otherwise.

Please make your dues check payable to the "Fair Lawn Amateur Radio Club" and remit to the following address:

Secaucus, NJ 07094

Mail sent to the clubhouse will be delayed due to Covid. See website for other membership options.

V

March 2022 FLARC Business Meeting

Fair Lawn Amateur Radio Club Secretary's Minutes Prepared by David KD2MOB Business Meeting of March 11, 2022

The Meeting was called to order by Nomar NP4H, at the Fair Lawn Community Center. The meeting was held via Zoom video teleconference as well and began at 7:40 PM and concluded at 8:48 PM.

The Pledge of Allegiance was recited at 7:41 PM

David KD2MOB facilitated a roll call and a quorum was established.

President -	Nomar Vizcarrando,	NP4H
V. President -	David Corsello,	KD2JIP
Treasurer -	Bruce Kalogera,	NJ2BK
Secretary -	David Gotlib,	KD2MOB
Trustees (3) -	Ed Efchak,	WX2R
	Fred Wawra,	W2ABE
	Brian Cirulnick,	KD2KLN

Opening remarks by Nomar NP4H.

David KD2MOB stated the February 4th Business Meeting Minutes were published in the February 2022 Resonator.

Motion to accept the Minutes - Brian KD2KLN, Seconded by Bill WA2WL

Treasurer Report by Bruce NJ2BK

Motion to accept the Treasurer Report as presented

- Gene W02W, Seconded by Skip KD2BRV

Nomar NP4H welcomed new member Avanti KC3DZG, formerly with the Air Force.

Committee Reports

Technical Committee - Paul W2IP - we had some issues with the repeater antenna on the tower and it will have to be replaced as well as the cable. The repeater is currently connected to a lower backup antenna and coverage is diminished. It will not be a cheap replacement. This will be discussed with the Board at a future Board Meeting.

Marketing Committee - Ed WX2R -

Programming -

- Friday, March 18th Charlie Cebula AC2ZU How the telegraph helped the North win the Civil War;
- Wednesday March 30: The 2022 FLARC Member Survey - Ed Efchak WX2R
- Tuesday, April 12th Yuri's Night: Bob Holstrom KD2BKD, Lee Smith KD2DRS, Norm Sutera KB2JRP and the West Palm Beach ARC
- April 15: DX'ing and ham radio in India— Sudipta Ghose VU2DT
 - May: TBD
- June: 17 Gordon Beatty W2TTT Setting up a ham radio station
- July: Van W2DLT and Fred W2AAB Hints and Kinks on QSL'ing
 - August: Jose Vincennes NP4G: DXpeditioning
 - September and October: TBD
- November: The Swiss Shortwave Merry Go Round: Bob Zanotti HB9ASQ
 - December: An ARRL Update and more

Events -

- April 6: Special Event and POTA Station at Great Falls National Historical Park, Paterson
- Monday, April 18th World Amateur Radio Day
 Clubhouse open 2-8PM
 - Field Day Last weekend in June
- POW-MIA Recognition Day: Sept 16th, We will participate as K4MIA/2 (approved)
 - Street Fairs in June and October
- Revised and cleaned up FLARC logos.

Thanks to Dave KD2JIP

• Trip to Newington and W1AW July or August Let WX2R know if you are interested in going.

Please pay your dues.

March 2022 FLARC Business Meeting, continued

Website Committee - Jim W2JC -

- The groups.io calendar contains info on all events of the club and other relevant events.
- A packet of QSL cards was recently received from the W2 Incoming QSL Bureau. These included cards from Italy, Germany and Russia.

RACES / ARES - David KD2MOB -

- The FLARC presentation with ARES to FL CERT on March 3rd went well. We had a nice turnout. Thank you to those who participated including Nomar NP4H, Ed WX2R, Jim N2JLF and Karl W2KBF. Jim N2JLF and Karl W2KBF used FLDIGI as emergency communications.
- The ARES / RACES Net has had low participation. Hoping for more members to join.
- There will be no ARES / RACES net on March 30th due to the FLARC Survey presentation which is taking place that day.

Field Day - Noel W2MSA

• On Monday a Field Day preparation zoom meeting will be held.

Social Media Committee - Thom W2NZ -

• Via email, Thom reported that our YouTube channel got 1,593 views in the last 28 days. There were 21 new subscribers this month. Part 2 of the POTA Kawfee Tawk has been posted.

VE Sessions - Gene WO2W -

• During February's session there were nine attendees. Six attendees received Technician Licenses and two attendees upgraded to a General License.

- The next session is on March 12th at 9:00 AM;
- Our club is getting big turnouts for the VE sessions. The results are now uploaded electronically, no more use of "snail mail." The Licenses are processed quicker, and the new Technicians usually receive their call sign within a few days after the test session.

FLARC Hamfest - Gene WO2W

• Zoom meeting for the Hamfest Committee was provided on March 10th. We received approval to move the Hamfest to Memorial Park and we will need all the help we can get. There will be 2 entrances for buyers and one for sellers. The buyer's admission is \$5 and will receive a wristband. Ed WX2R and Gene W02W are looking for sponsors. There will be 100 vendor parking spaces and 300 available for attendees. The entrances will be by Essex Street and Bellair. Volunteers will be asked to work the gate; there will also be a refreshments stand.

Special Interest Groups

Digital Radio - Dave N2AAM

New software is available for the GD-77 radio.

Contests - Van W2DLT

- A couple of contests were mentioned. There were various openings within the bands.
- Sussex Hamfest is on July 17th. After the Sussex Hamfest you may visit the Van Fest. Fliers will be issued.
 - The Cherryville Hamfest is on Saturday, March 12th.

Portable Operations SIG - Noel W2MSA

• POTA - Parks on the Air - Very busy and active. Noel thanked Steve KA2YRA, and KD2FMH from Brooklyn.

March 2022 FLARC Business Meeting, continued

- Portable operations Special Station K2T will be operating on April 2nd. Special Station W2P will be operating from West Point on April 23rd.
- There are plans to set up a park by the Jersey Shore located by the Stoney Point Lighthouse.

Monitoring SIG - Dave N2AAM

 The November Kawfee Tawk will be sponsored by the Monitoring SIG. Our guest will be Robert "Bob" Zanotti HB9ASQ from Bern Switzerland. Bob has an interesting history. He was born and raised in New Jersey. He became interested in radio as a youngster. This interest led him into SWLing, Amateur Radio and international Short wave broadcasting. He worked for Swiss International from 1970 through 2004 and was one of the hosts of The Swiss Shortwave Merry-goround. Bringing his decades long experience in international broadcasting along with his amateur radio perspective to the mix he will have interesting insights as to where international broadcasting is heading as well as being a Jersey local he will have an interesting perspective.

Health and Welfare - Judith KC2LTM

Bruce's wife is recovering nicely.

Noel W2MSA thanked the FLARC membership for reaching out regarding the loss of his Mother-in-Law.

Skip KD2BRV is doing well.

Nomar mentioned that we are glad to have Skip back. Nomar also mentioned that we are a family.

New Business

Nomar mentioned a new vendor for our new shirts with the new FLARC logo. The apparel will include an embroidered name and call sign. These shirts cost \$25 up to size 2XL. Please contact Nomar at NP4H@aol.com to place an order. Nomar doesn't make a commission on the orders. The vendor made Covid face masks for the club and also made shirts for other organizations such as the Lodge. The vendor will be invited to come to our Hamfest.

Comments by Judith KC2LTM -

Judith asked about the Frank Leonard W2NPT Award.

Nomar NP4H stated it was decided to present the Frank Leonard W2NPT award live at an in person Business Meeting at a future meeting sometime in the first half of the year when we can all be together.

Comments by W2JC and others -

Special event stations for the 100th anniversary of WABC and WOR. Will be looked into by contacting Tom Ray W2TR for WOR. We may potentially have Tom Ray as a speaker at a future event.

8:48 PM - Motion to Adjourn -

Motion to close the meeting by Jim N2JLF, Seconded by Bill WA2WL.

Respectfully submitted on March 12, 2022 by David KD2MOB. 73.



See page 56 for the easy way!

Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	Pete	KB2BMX
February	Marco	KC2ZMA
March	Ron	KC2TBD
April	Kai	K2TRW
May	Larry	WA2ALY
June	Dave	N8MAR
July	Steve	WI2W
August	Thom	W2NZ
September	Brian	KD2KLN
October	Brad	KM2C
November	Al	WA2OWL
December	George	W3EH
January 2017	Fred	W2ABE
February	Dave	KD2MOB
March	Randy	WU2S
April	Lee	KD2DRS
May	Gene	WO2W
June	Carol	KD2NMV
July	Kevin	KC2KCC
August	Robert	KD2NOG
September	Robert	KD2BKD
October	John	KD2NRS
November	Fred	W2AAB
December	Margaret	W2GB
January 2018	Brian	KD2OAZ
February	Bennett	ко2ок
March	Van	W2DLT
April	Aly	ALØY
May	Bruce	NJ2BK
June	Dave	N2AAM
July	Karl and	W2KBF and
	Susan	W2SKT
August	Steve	KA2YRA
September	Paul	K2PJC
October	Skip	KD2BRV
November	Jim	W2JC
December	Tom	N2AAX

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office.

Thanks Randy!!!

2019-20 Member Profiles

The year is now complete and here is a list of the 2019 monthly profiles. See past profiles elsewhere in *The Resonator* to check back in the archives to see each featured member's background.

Month	Name	Call Sign
January 2019	Dave	KD2JIP
February	Jim	K2ZO
March	Zach	KC2RSS
April	Bob	N2SU
May	Stan	KC2K
June	Steve	WA2BYX
July	Roger	K2RRB
August	Judith	KC2LTM
September	Chris	W2TU
October	Bob	N2SU
November	Bob	WA2ISE
December	Carol	KD2NMV
January 2020	Gordon	W2TTT
February	Chris	KD2JQZ
March	Glenn	KD2MDR
April	Steve	K2SAB
May	Ahmed	NJ8Y
June	Charlie	AC2ZU
July	Jim	N2JLF
August	Walt	K3DQB
September	Gregg	N2ECH
October	Jim	W2KNG
November	Dave	KD2SGM
December	Bill	NB1ILL

2021 Member Profiles

Here is a list of the 2021 monthly profiles.

Month	Name	Call Sign
January 2021	Ed	KD2TVT
February	John	W2USN
March	Noel	W2MSA
April	Gene	KD2VNI
May	Berlotte	KD2MYF
June	Noel	N2OEL
July	Roy	KD2VMX
August	Jeremy	K2GRI
September	Bill	WA2WL
October	Nomar	NP4H
November	David	AC2GL
December	Paul Brennan	N6FB/MØJOV